LINDENIA

ICONOGRAPHY

OF ORCHIDS

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LINDENIA

ICONOGRAPHY

OF ORCHIDS

CONDUCTED BY

J. LINDEN, LUCIEN LINDEN and EM. RODIGAS.

IV.

1892.

Mo. Bot. Garden,
1895.

GHENT,
PRINTED BY EUG. VANDERHAEGHEN.

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PART XIX. AUGUST 1892.

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ICONOGRAPHY

OF ORCHIDS

CONDUCTED BY

J. LINDEN, LUCIEN LINDEN and EM. RODIGAS.

THE COLOURED PORTRAITS BY

P. DE PANNEMAEKER, A. GOOSSENS and J. GOFFART.

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ZYGOPETALUM (WARSCEWICZELLA) LINDENI ROLFE

PL. CCCXXXVII.

ZYGOPETALUM (WARSCEWICZELLA) LINDENI ROLFE.

M. LINDEN'S ZYGOPETALUM.

ZYGOPETALUM. Vide *Lindenia*, Engl. ed., vol. I, p. 27.

Zygopetalum (*Warscewiczella*) *Lindeni*. Folia elliptico-lanceolata, acuta, plicata, basi attenuata, conduplicata, circa 15-22 cm. longa, 3-5 cm. lata. Pedunculi foliis multo breviores, uniflori. Bracteae lanceolatae, acuminatae, circa 1-3 cm. longae. Sepala-lanceolato acuminata, posticum 3.5 cm. longum, 1.2 cm. latum, lateralia paullo longiora. Petala sepalo postico similia. Labellum trilobum, 5.5 cm. longum, lobis lateralibus triangulis obtusis incurvis, lobo medio maximo suborbiculari retuso undulato, callo late triangulo apice bicuspidato. Columna clavata, 1-8 cm. longa.

Zygopetalum (*Warscewiczella*) *Lindeni* ROLFE, *supra*.

Warscewiczella Lindeni HORT., *Journ. of Hort.*, 1892, pt. I, pp. 449, 461, fig. 79.

This handsome species was exhibited by Messrs. LINDEN, L'HORTICULTURE INTERNATIONALE, Brussels, at a meeting of the Royal Horticultural Society, on June 7th, last, when it was awarded a First-class Certificate. It was imported by this firm, but its precise habitat has not been recorded. Botanically it is allied to *Z. marginatum* RCHB. F. and *Z. ionoleucum* RCHB. F., especially to the latter, from which it may be distinguished by its much larger size and simply bicuspidate crest; in fact the lip of *Z. Lindeni* is fully twice as long as that of *Z. ionoleucum*, and very much broader. The colour of our novelty is pure white, with a few light purple radiating lines on the disc.

R. A. ROLFE.

L'HORTICULTURE INTERNATIONALE

(LINDEN).

This powerful nursery company was founded four years ago on the nurseries of Monsieur J. LINDEN, who had built up for himself a great reputation in Ghent, where during the greater part of half a century he occupied himself with the introduction and cultivation of beautiful exotic plants of all kinds. What VEITCH, Low and several others were to English, LINDEN was to Belgian horticulture. But Ghent is provincial, and Monsieur LINDEN felt that Brussels could afford much greater opportunities for the success of his enterprise. His anticipations have been more than realized, for not only does his " Société Anonyme " include some of the most influential and richest of Belgian amateurs, but the result of his venture has been to create among the wealthy residents in Brussels, as

wel as in Belgium generally, a love for Orchids which now bids fair to become at least as far-reaching as it is in England.

The director of the company is Monsieur LUCIEN LINDEN, his father retaining control only over the collecting and introducing of new plants. The nursery is very extensive; it is entirely devoted to the cultivation of in-door plants, and is planned in such a manner as to afford the best possible conditions for the healthy growth of the plants and at the same time the most enjoyable " show-room " for visitors. From the entrance to the stoke-holes, everything in the establishment is in most admirable order, so that whether the visitor is inspecting the gigantic Palms and Tree Ferns in the corridors, the tropical Orchids or the admirably fitted workshop in which packing, cleaning, potting, etc., are performed, he cannot help being struck by the excellent order and cleanliness which prevail everywhere in this well-organized establishment. The nursery is a gigantic drawing-room, for it teems with beautiful objects which may be inspected with perfect ease and enjoyment. In my opinion, this nursery is one of the very best of the many attractions which the beautiful town of Brussels offers to visitors.

So much for L'HORTICULTURE INTERNATIONALE as an exhibition. The attractions for cultivators of exotic plants are, at least, as great as those of any other nursery known to me. The collection of Orchids is very extensive. All the best garden kinds are grown in enormous numbers and grown wonderfully well. Odontoglossums, Masdevallias, Cattleyas, Laelias, Vandas, Aërides, Dendrobiums—these are represented by thousands of plants, and all so full of vigor that one can scarcely refrain from purchasing. The houses are all very large, some exceptionally so. They are lightly built, with stages running close to and parallel with the roofglass; the floor is of fluted tiles, and beneath the stages there are open tanks of soft water. The material used for shading is thin lath-blinds, so constructed as to allow the rays of sunshine to reach the plants directly, but never to shine on any one point long enough to burn. The compost used for almost every one of the Orchids is a mixture of finely chopped sphagnum, and chopped peat formed of the roots of Polypodium, not the Brake Fern commonly used in England. Water is supplied much more liberally than one usually sees, even for Orchids, some of the plants, such as Odontoglossums and Vandas, being liberally syringed overhead several times a week, even in spring. These are the conditions and material, so far as I could discover, which produce such marvelous results in this nursery. There remain still the skill and judgment of the cultivator. Monsieur LINDEN is his own grower, but he knows the wisdom of having a large staff of permanent assistants. Very few of the men employed by him are what are termed journeymen.

I must not overlook one very important item in the cultural arrangements of Monsieur LINDEN, namely, the use of tobacco to keep down insect pests,

(To be continued on p. 8.)

GRAMMANGIS ELLISII RCHB. F.

PL. CCCXXXVIII.

GRAMMANGIS ELLISII RCHB. F.

REV. W. ELLIS' GRAMMANGIS.

GRAMMANGIS. Sepala subaequalia, posticum subfornicatum, lateralia patentia, libera v. basi brevissime in gibbum didymum connata, omnia carnosula. Petala multo breviora tenuioraque, lata, obliqua. Labellum basi columnae affixum, erectum, sepalis multo brevius; lobi laterales lati, erecti, medius brevis, subpatens; discus lamellatus v. cristatus. Columna erecta, leviter incurva, bialata, apoda; clinandrium obliquum, incurvum. Anthera terminalis, opercularis, incumbens, valde convexa, dorso appendiculata, imperfecte bilocularis; pollinia 2, late subglobosa, sulcata, in anthera collateraliter contigua, anthera dehiscente glandulae latae squamiformi affixa.

Herbae epiphyticae, validae, caule brevi in pseudobulbum oblongum v. fusiformem carnosum incrassato. Folia pauca, longa, coriacea, parum venosa. Scapi ad basin pseudobulbi longi, simplices. Racemus laxus, floribundus, floribus speciosis longe pedicellatis. Bracteae magnae.

Species 2, Madagascarienses.

Grammangis RCHB. F. *Xen. Orch.*, II, p. 17. — BENTH. et HOOK. F., *Gen. Plant.*, III, p. 537 (excl. sp. Javanica).

Grammangis Ellisii. Pseudobulbi fusiformi-oblongi, angulati, polyphylli. Folia lorato-linearia, obtusa v. bidentata, basi canaliculata. Scapi ad basin pseudobulbi laterales, recurvi; racemi multiflori. Bracteae ovato-v. oblongo-lanceolatae, acutae, 1 1/2-2 1/4 poll. longae. Sepala oblonga, subacuta, 1 1/2 poll. longa. Petala oblonga, subobtusa, 9-10 lin. longa, apice revoluta. Labellum petalis aequale, trilobum, lobis lateralibus erectis latis obtusis, lobo medio late triangulo apice revoluto, jugo medio elevato ultra isthmum subito dilatato dein obtuse tricuspidato, disco utrinque et fronte lamellato. Columna 1/2 poll. longa, anthera cristata.

Grammangis Ellisii RCHB. F. in *Hamb. Gartenz.*, XVI (1860), p. 520. — *Id. Xen. Orch.*, II, p. 17.

Grammatophyllum Ellisii LINDL., ex HOOK., *Bot. Mag.*, LXXXVI (1860), t. 5179. — *Fl. des Serres*, t. 1488-9. — WARN. & WILL. *Orchid Album*, IV, t. 147. — *Orchidophile*, 1886, p. 352, cum ic. — RCHB. F. in *Gard. Chron.*, 1878, pt. II, p. 333. — *Id.*, 1880, pt. II, p. 326 (var. *Dayana* RCHB. F.).

The handsome Orchid figured in the annexed plate was originally introduced from Madagascar by the Rev. WILLIAM ELLIS, who made three visits to that island during the years 1853, 1854, and 1856, and afterwards embodied the results of his observations in a very interesting work, which was published in 1858. The traveller met with it growing on the branch of a tree which stretched over a river, and about 25 feet above the water. On his arrival home he placed it in his Orchid house, at Hoddesdon, where it flowered in April, 1859. A coloured drawing of the entire plant was sent to Dr. LINDLEY, together with some of the flowers, and the former was soon afterwards published in the *Botanical Magazine*, as *Grammatophyllum Ellisii* LINDL., the author remarking that in some respects the plant corresponded with Grammatophyllum, while in others it approached Cymbidium, which genera might possibly be hereafter united.

REICHENBACH at once separated the plant as a distinct genus, under the name of Grammangis, which afterwards he appears to have abandoned, as he twice reverted to the original name, and also described an additional Madagascar

species as *Grammatophyllum Roemplerianum*, which from the description would appear to be an ally of the present one. BENTHAM, however, retains Grammangis as distinct, though he adds to it the Javan *Cymbidium Huttoni* HOOK. F. (*Bot. Mag.*, t. 5676), which appears to me not to possess the essential characters of Grammangis. As the present plant differs considerably from the Asiatic Grammatophyllums, perhaps the best plan is to consider it as a distinct genus.

It appears to be a very local plant in Madagascar, as M. HUMBLOT is reported to have searched a long time for it, though he ultimately obtained a considerable number of specimens. The regular transverse bars shown on the sepals of the *Botanical Magazine* figure (copied in *Flore des Serres*) are probably incorrect, as in a coloured sketch by Dr. LINDLEY, preserved in his herbarium, they are not so represented.

R. A. ROLFE.

(Continued from page 6.)

the curse and ruin of the large majority of Orchid collections. Tobacco is an old insecticide, but it is not often applied as Monsieur LINDEN applies it. In every house, resting upon the hot-water pipes and held in position by means of wire netting, is a layer of the refuse stalks and midribs of tobacco leaves, which, in Belgium, can be obtained at about seven francs the hundred kilos. This is wetted once or twice a day, and the vapor which arises is consequently impregnated with nicotine, which permeates the whole atmosphere in the house and is inimical to insects. It does no harm to the most delicate plants, but it keeps down insects so well that Monsieur LINDEN finds it scarcely ever necessary to clean his plants. In this manner much labor is saved, and the plants are kept clean. Moreover, the injury which is the almost inevitable result of scraping and sponging the leaves of delicate Orchids, is altogether avoided. In England tobacco is too expensive to be used in this way, but it would not be difficult to devise some means for obtaining the nicotine cheaply and in such a form as would satisfy the excise authorities. These are small details, perhaps, but upon them a great deal more depends than many growers imagine.

There is a house with about five thousand magnificent plants of *Angraecum sesquipedale*, only a few months imported, but as healthy in foliage and vigorous in root-action as though they had been there for years. Then a huge houseful of *Laelia purpurata*, many of them grand specimens. A large batch of healthy plants of *Saccolabium coeleste*, one of the most beautiful of blue-flowered Orchids, was pointed out as " all that remained " of a very large and successful importation of that very bad traveller; of Odontoglossum I saw some of the most beautiful species and varieties that it has ever been my privilege to see. Their names were legion, their value, in many cases, almost fabulous; about their exquisite beauty there could be no question. It was

(*To be continued on p.* 10.)

ZYGOPETALUM GRAMINIFOLIUM ROLFE

A. Goossens pinx. P. De Pannemacker chr.

PL. CCCXXXIX.

ZYGOPETALUM GRAMINIFOLIUM ROLFE.

THE GRASS-LEAVED ZYGOPETALUM.

ZYGOPETALUM. Vide *Lindenia,* Engl. ed., vol. I, p. 27.

Zygopetalum graminifolium. Rhizoma repens, gracile. Pseudobulbi parvi, ovoideo-oblongi. Folia anguste laceolato-linearia, acuminata, nervosa, 20-30 cm. longa, 7-10 mm. lata. Scapi erecti, multiflori. Bracteae lanceolato-ovatae, acutae, basi vaginatae, 2.5-4 cm. longae. Pedicelli 3-4 cm. longi. Sepala patentia, oblongo-lanceolata, acuta, 2.5-3 cm. longa. Petala sepalis similia, basi angustiora. Labellum late obovatum v. obcordatum, 2-5 cm. longum, 2 cm. latum; crista unguiliformis, crenata, maxima. Columna clavata. 1.5 cm. longa.

Zygopetalum graminifolium ROLFE in *Gard. Chron.*, 1882, pt. II, p. 179.

This elegant little plant is a near ally of the well-known *Zygopetalum maxillare* LODD., of which for some time I thought it might be a narrow-leaved variety. But its differences, well marked from the first, have proved so constant in character that its claim to specific rank must be conceded. It belongs to a small group, of which *Z. Gautieri* LEM. is the third member, whose peculiarity is to grow on the stems of tree-ferns. The present species was introduced by Messrs F. SANDER & C°, of St Albans, some years ago, but has only been recently described. It is a native of South Brazil, and was imported on the stems of *Lomaria Boryana*. It may be readily separated from *Z. maxillare* and *Z. Gautieri* by its much more slender creeping rhizome, smaller pseudobulbs, and much narrower, grass-like leaves. The racemes are erect, and about 5-7-flowered, the sepals and petals light green heavily blotched with dark brown, and the lip of a uniform bright purple-blue, with a very large horse-shoe-shaped, crest near the base, as in *Z. maxillare*. The plant here represented flowered with M. ALFRED VAN IMSCHOOT, a well-known amateur of Ghent, and was exhibited at a meeting of L'ORCHIDÉENNE of Brussels, in April last, when it was awarded a first-class Diploma of honour under the name *Z. Imschootianum*.

R. A. ROLFE.

(Continued from page 8.)

abundantly evident from what I saw that Monsieur LINDEN had " struck a particularly rich vein " of *Odontoglossum crispum*. His recent great success, *Cattleya Warocqueana*, which he insists is the autumn-flowering *C. labiata*, is revealed in an astonishing range of richness of variety, both in habit of plant, form of flower and in color. As a garden Orchid, it is of the very highest merit, being a vigorous grower, and flowering with great freedom, even for a Cattleya. Monsieur LINDEN pointed to the few plants which remained of the thousands he began with, as a proof that Orchid fanciers had discoverered the beauty and value of this Cattleya.

(To be continued.)

A LIST OF ORCHIDS

IN BLOOM DURING THE MONTH OF JULY IN THE HOUSES OF " L'HORTICULTURE INTERNATIONALE ,, LEOPOLD PARK, BRUSSELS.

Acineta Barkeri.
— Humboldtii.
Aerides affine.
— crassifolium.
— crispum.
— expansum.
— falcatum.
— Lobbii.
— odoratum.
— quinquevulnerum.
— suavissimum.
— Huttoni.
— Vandarum.
Angraecum caudatum.
— Chailluanum.
Aganisia cyanea.
Anguloa media.
— eburnea.
— uniflora.
— Rückeri.
Barkeria divers (imported).
Bulbophyllum anceps (a new species).
— Lobbii.
— Dearei.
— variegatum.
Broughtonia sanguinea.
Calanthe Masuca.
— veratrifolia.
Catasetum atratum.
— Bungerothii.
— — Pottsianum.
Catasetum Gnomus.
— Hookeri (imported).
— tenebrosum.
— saccatum.
Cattleya Aclandiae (imported).
— aurea.
— citrina.
— Claesiana (imported).
— Dowiana.
— Eldorado (imported).
— — alba (id.).
— Forbesi.
— Gaskelliana.
— gigas.
— granulosa and variety Buyssoniana.
— Harrisoniae.
— intermedia.
— Mendeli (late flowering).
— Mossiae (id.).
— Schilleriana.
— Warneri.
— Victoria Regina (imported).
Chysis aurea.
Cirrhopetalum Brienianum.
— ornatissimum.
— pulchrum.
Cochlioda Nötzliana.
Coelogyne asperata.
— sp.
Colax jugosus.
— viridis.
Comparettia falcata.
— speciosa.
Coryanthes leucocorys.
Cycnoches peruvianum.
Cypripedium albo-purpureum.
— Ashburtoniae.
— barbato-Veitchii.
— barbatum.
— callosum.
— calurum.
— ciliolare.
— concolor.
— Crossianum.
— Curtisii.
— Dominyanum.
— Euryale.
— grande.
— hirsutissimum.
— Io.
— Javanicum.
— Lawrenceanum.
— longifolium.
— Mastersianum.
— oenanthum superbum.
— Peteri.
— Sedeni.
— selligerum.
— Stonei.
— superbiens.
— superciliare.
— Swanianum.
— venustum.

(To be continued on p. 12).

DENDROBIUM NOBILE LINDL. var. COOKSONIANUM RCHB. F.

PL. CCCXL.

DENDROBIUM NOBILE LINDL. var. COOKSONIANUM RCHB. F.

THE NOBILE DENDROBIUM, COOKSON'S VARIETY.

DENDROBIUM. Vide *Lindenia,* Engl. ed., vol. I, p. 37.

Dendrobium nobile. Pseudobulbi teretes, elongati, foliosi. Folia lanceolato-oblonga, inaequaliter bidentata, subobtusa. Flores fasciculati v. brevissime racemosi, speciosi. Bracteae vaginatae, ovato-oblongae, obtusae. Sepala patentia, lineari-oblonga, subobtusa, sepalis multo latiora. Labellum suborbiculare v. rotundato-ovatum, obtusum v. subacutum, basi convolutum, disco velutino. Columna brevissima.

Dendrobium nobile LINDL. *Gen. & Sp. Orch.* (1830), p. 79. — ID., *Sert. Orch.*, t. 3. — ID., *Bot. Reg.*, XXX, *Misc.*, p. 48. — ID. in *Journ. Linn. Soc.*, III, p. 12. — PAXT. *Mag. Bot.*, VII, p. 7, cum. ic. — VEITCH *Man. Orch.*, pt. 3, p. 63, cum xyl. — HOOK. F. *Fl. Brit. Ind.*, V, p. 740.

D. coerulescens WALL. ex LINDL. *Sert. Orch.*, t. 18.

D. Lindleyanum GRIFF. *Notul.*, III, p. 309, ex parte, excl. fig.

Var. Cooksonianum. Petala labello subsimilia, planiora, basi atropurpurea.

Var. Cooksonianum RCHB. F. in *Gard. Chron.*, 1885, pt. I, p. 692. — VEITCH *Man. Orch.*, pt. III, pp. 63, 64, cum xyl.

Dendrobium nobile was originally described by Dr. LINDLEY, in 1830, from a Chinese drawing in the Library of the Horticultural Society of London. The drawing was brought home by Mr. REEVES, together with a living plant, which was presented by him to Messrs. LODDIGES, of Hackney, in whose collection we are told it flowered for the first time, and in great magnificence, in February, 1837. A figure was at once published by Dr. LINDLEY in his *Sertum Orchidacearum*. The plant was bought in the market at Macao.

Immediately afterwards, in April 1838, another plant, which had been sent from the Khasia hills to the Duke of DEVONSHIRE by Mr. GIBSON, flowered at Chatsworth and was described as *D. coerulescens* WALL., but soon proved identical with the Chinese plant.

The species is now known to occur over a rather wide range, from Sikkim to Central China, and a considerable number of distinct varieties are in cultivation. The one here figured is a curious and splendid sport in which the petals are metamorphosed, and somewhat lip-like in character, being somewhat concave, more parallel with the column, and with a large maroon blotch on the basal half. It is said to have been first observed in the collection of Mr. THEODORE LANGE, at Heathfield House, Gateshead. Plants passed into the collection of NORMAN C. COOKSON, Esq., of Wylam-on-Tyne, who first exhibited it, and whose name was applied to it by Prof. REICHENBACH. Singularly enough the same sport is said to have since appeared independently in two other collections. It appears to be quite permament in character, and as easy to grow and flower

as any other form of this handsome species. The annexed figure was prepared from a specimen kindly sent by WILLIAM R. LEE, Esq., of Manchester.

R. A. ROLFE.

(*Continued from page* 10.)

Cypripedium vernixium.
— Williamsii and several new hybrids.
Cyrtopodium punctatum St Legerianum.
Dendrobium aggregatum.
— Dearei.
— Jamesianum.
— formosum (imported).
— nobile (id.).
— Mac Carthiae.
— macrophyllum.
Disa grandiflora.
Epidendrum Randii.
— cinnabarinum.
— Friderici-Guilielmi (import.).
— nemorale.
— selligerum.
— Schomburgkii.
— vitellinum.
Eulophia pulchra.
Galeandra d'Escragnolleana.
— Baueri.
— cristata.
Gomezia recurva.
Gongora atropurpurea.
— truncata.
— viridis.
Grammatophyllum Ellisii.
Habenaria militaris.
Houlletia Brocklehurstiana.
Laelia elegans and varieties.
— crispa.
— grandis tenebrosa.
— majalis.
— purpurata.
— Schröderi.
— — delicata.
Leptotes bicolor.
Lycaste plana.
Masdevallia bella.
— Bruckmulleri.
— Chestertoni.
— Chimaera.
— civilis.
— Ephippium.
— Estradae.
— Harryana and varieties.
— ignea.
Masdevallia infracta.
— Lindeni.
— peristeria.
— polysticta.
— Reichenbachiana.
— Shuttleworthii.
— spectrum.
— triangularis.
— Trochilus.
— Veitchiana.
— Wageneriana.
Maxillaria luteo-alba.
Mesospinidium roseum.
— sanguineum.
Miltonia bellula.
— Phalaenopsis.
— Regnellii.
— Roezlii.
— — alba.
— vexillaria.
Mormodes buccinator var. nov.
— pardinum.
— punctatum.
Nanodes Mantinianum.
Odontoglossum bictonense.
— citrosmum.
— cordatum grandiflorum.
— crispum and varieties.
— Halli.
— Harryanum.
— hastilabium.
— hystrix.
— nebulosum candidulum.
— Pescatorei.
— Reichenheimii.
— Rossii majus.
— Schillerianum.
— Uro-Skinneri.
Oncidium crispum.
— cristatum.
— cucullatum.
— Gardneri.
— hastatum.
— holochrysum.
— incurvum.
— Krameri.
— Lanceanum.
— monachicum.
— Papilio.
Oncidium Phalaenopsis.
Paphinia grandis.
Pescatorea cerina.
Phalaenopsis amabilis.
— Esmeralda.
— — candidula.
— — rubra.
— grandiflora.
— violacea.
Promenaea stapelioides.
Rodriguezia refracta.
— Lindeni.
— secunda.
Saccolabium bellinum.
— Blumei.
— curvifolium.
— giganteum.
— guttatum.
— Hendersonianum.
— miniatum.
Sobralia macrantha.
— — nana.
Stanhopea eburnea.
— insignis.
— Moliana.
— oculata.
— Wardii.
— — venusta.
Thunia Marshalliana.
Trichocentrum albo-purpureum.
— cornu-copiae.
Trichopilia crispa.
— marginata.
— suavis.
Vanda Batemannii.
— Boxallii.
— coerulea (imported).
— coerulescens (id.).
— gigantea.
— suavis and varieties.
— tricolor and varieties.
— teres (imported).
Warscewiczella discolor.
— Lindeni.
— Wailesiana.
Xylobium squalens.
Zygopetalum Lindeniae.
— gramineum.

LINDENIA

English edition

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Aerides suavissimum, Anguloa uniflora var. Treyerani. Burlingtonia pubescens, Catasetum barbatum var. spinosum, Cattleya bicolor, Cattleya × Hardyana var. Laversinensis, Coryanthes leucocorys, Cycnoches peruvianum, Cypripedium × vexillarium, Dendrobium × Ainsworthi, Dendrobium leucophotum, Dendrobium superbiens, Diacrium bicornutum, Disa grandiflora, Laelia grandis var. tenebrosa, Laelia purpurata var. rosea, Laelio-Cattleya × Arnoldiana, Masdevallia coriacea, Mormodes Rolfeanum, Odontoglossum crispum var. xanthotes, Phalaenopsis violacea, Rhynchostylis coelestis, Selenipedium × calurum, Trichocentrum triquetrum.

3rd Volume

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PART XX. SEPTEMBER 1892.

LINDENIA

ICONOGRAPHY

OF ORCHIDS

CONDUCTED BY

J. LINDEN, LUCIEN LINDEN and EM. RODIGAS.

THE COLOURED PORTRAITS BY

P. DE PANNEMAEKER, A. GOOSSENS and J. GOFFART.

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EPIDENDRUM WALLISII RCHB. F.

A. Cogniaux pinx.

J. Goffart direx.

PL. CCCXLI.

EPIDENDRUM WALLISII RCHB. F.

M. GUSTAVE WALLIS' EPIDENDRUM.

EPIDENDRUM. Vide *Lindenia,* Engl. ed., vol. III, p. 45.

Epidendrum Wallisii. Caule elongato erecto calamum corvinum crasso, vaginis valde rugosis asperis; foliis distichis lanceolato-oblongis acutis; racemis axillaribus et terminalibus in eodem caule, basi vaginatis, 2-4-floris; bracteis triangulo-ovatis, ovaria longe pedicellata multo brevioribus; sepalis petalisque elliptico- v. lanceolato-oblongis subacutis; labello adnato cuneato flabellato quadrifido, lobis oblongis v. obovato-oblongis obtusis v. crenulatis, carinis in basi labelli ternis seu quinis brevibus medio longioribus, venis radiantibus minutissime tuberculatis; columna brevis, androclinii limbo quadrifido.

Epidendrum Wallisii RCHB. F. in *Gard. Chron.,* 1875, pt. II, p. 66. — ID. 1878, pt. I, p. 462. — WARN. & WILL. *Orch. Album,* II, t. 74. — VEITCH *Man. Orch.,* pt. VI, p. 126, cum xyl.

This handsome and distinct species is one of the discoveries of the late GUSTAVE WALLIS in New Granada, whence it was sent to Messrs. JAMES VEITCH and Sons, of Chelsea, with whom it flowered for the first time in Europe in 1875. It was then described by REICHENBACH from a sketch, a dried specimen, and a single living flower. It has the peculiarity of producing both terminal and lateral inflorescences, on which account REICHENBACH made of it a new section of the genus, under the name of Acropleuranthium.

Though at first thought to be a comparatively dwarf species it is now known that large plants attain a height of three and four feet. The stems are erect and reed-like, leafy throughout, and the sheaths rugose and spotted with brownish-purple. The leaves are from three to five inches long, by about an inch broad. The racemes, which are clothed with sheathing scales at the base, bear from two to four fragrant flowers, with golden-yellow segments spotted with crimson-purple, and a broad four-lobed white lip with radiating purple lines and a yellow disc. It is rather variable in colour, as the spots are sometimes absent from the sepals and petals, and amount of purple veining on the lip varies considerably in different individuals.

When well grown, as it is in the collection of M. A. VAN IMSCHOOT, the possessor of the plant from which the present plate was taken, it is very attractive and floriferous; the individual blossoms remain a long time in perfection, and it is said that a strong plant will continue to blossom almost throughout the year.

R. A. ROLFE.

L'HORTICULTURE INTERNATIONALE

(LINDEN).

(*Continued from page* 5.)

A house containing several thousand plants of Dendrobium from northern Australia, all in splendid health, and most of them coming into flower, was pointed to with pride, by both the veteran Monsieur J. LINDEN and his son, as being likely to reveal some treasures in the way of *D. Phalaenopsis*, *D. Goldieanum*, etc., before very long. A big batch of *Cattleya Buyssoniana*, another of the new *Coryanthes Bungerothii*, another of *Grammatophyllum Ellisii*, and still another of the new Bornean *Coelogyne peltastes* followed each other in rapid succession. These may be taken as an example of the richness of the collection which was revealed as we walked through one house after another; they also are evidences of the enterprise of this company in the work of introducing new plants, for in these plants we have new discoveries made by Monsieur LINDEN's collectors, and under his directions, in Australia, Borneo, Madagascar and South America. At present there are five collectors employed solely in the search for new plants, two others being told off to look after those which are in great demand, such as Odontoglossums and Cattleyas.

Smaller houses contain many rarities such as delight the eye of the connoisseur in Orchids. I noted in them living plants of the beautiful Telipogons, which are certain to rival the best Masdevallias if they can only be induced to stay with us, *Trichoceros muralis*, *Lissochilus giganteus*, *Haemaria Otletae*, a prettily veined ally of Anoectochilus, *Cattleya Rex*, which Monsieur LINDEN declares is the most lovely of all Cattleyas, and which has been seen by his collector with fourteen flowers on a spike; *Cattleya Randii*, the white variety of *C. superba; Oncidium Leopoldii*, one of the most beautiful of recent discoveries. I might go on to enumerate all the best Orchids hitherto described, and add to them nearly fifty new ones as yet undescribed, but here growing under Monsieur LINDEN's watchful eye, and even then I should not have exhausted the list of interesting Orchids to be seen at this nursery.

* * *

Although Orchids are the principal plants, there are many others which are objects of Monsieur LINDEN's special care. Nepenthes of all kinds are grown in large numbers, a large house being entirely filled with them, so far as roof-space is concerned. Stove plants of the choicest kinds, such as Aroids, Palms, Ferns and many flowering plants, are represented by many beautiful species,

(*To be continued on p.* 16.)

CORYANTHES MACROCORYS ROLFE

PL. CCCXLII.

CORYANTHES MACROCORYS ROLFE.

THE LONG-HELMETED CORYANTHES.

CORYANTHES. Vide *Lindenia,* Engl. ed., vol. II, p. 13.

Coryanthes macrocorys. Pseudobulbi ovoideo-oblongi, circa 6 cm. longi, 4 cm. lati. Folia late lanceolata, acuta, plicata, circa 25-30 cm. longa, 5-6 cm. lata. Scapi penduli, biflori. Bracteae ovato-oblongae, acutae, 3-4 cm. longae. Sepalum posticum suborbiculari-ellipticum, acutum, 3-2 cm. longum. Sepala lateralia obliqua, semiovato-oblonga, acuta, 8.5 cm. longa, 4 cm. lata. Petala falcata, lineari-oblonga, subacuta, 4 cm. longa, 8 mm. lata. Labelli unguis brevissima, suberecta; hypochilium erectum, elongatum, angustum, dorso compressum, carnosum, 2-7 cm. longum, 1-4 cm. latum, 8 mm. crassum; mesochilium elongatum, subgracile, canaliculatum, elamellatum, 4 cm. longum; epichilium 3-3 cm. latum, 4 cm. altum, apice trilobum, lobo medio lineari-oblongo truncato 1-3 cm. longo, lobis lateralibus falcatis acutis 1 cm. longis. Columna 5-5 cm. longa; glandulae arcuatae, 2 cm. longae.

Coryanthes macrocorys ROLFE, *supra*.

Not long ago the beautiful *Coryanthes leucocorys* came as a great surprise, on account of its remarkable ivory-white hood, so different from anything which had previously appeared. But now comes a novelty of another kind. The usual shape of the helmet in this strange genus is that of a rounded hollow pouch, rather broader than long, the most notable exception being *C. elegantium*, in which it takes the form of a nearly flat, plate-like process. In the present species this organ is elongated, considerably longer than broad, placed close to and parallel with the ovary, and very fleshy, so that the cavity is very small, and only extends half way to the apex. It is also quite destitute of hairs, and bears a much smaller proportion to the rest of the flower than in most other species. The mesochil is also much longer than usual, as it separates the helmet from the bucket by a distance of one and a half inch. The glands at the base of the column are also unusually long, and curved over at the apex.

It is a native of Peru, and was introduced by Messrs LINDEN, L'HORTICULTURE INTERNATIONALE, Brussels, with whom it flowered for the first time during March of the present year.

As regards colour, the flowers bear some resemblance to those of Stanhopea. The ground-colour is of a pale semitranslucent greenish-yellow, with numerous small transverse spots and splashes of pale reddish brown on the sepals and petals. The helmet is lined and almost suffused with a similar colour, while on the mesochil and the outside of the bucket are many minute spots, and some small blotches on the inside of the latter. The face of the column is also spotted with reddish-brown. The specific name is given in allusion to the elongated shape of the helmet.

R. A. ROLFE.

(Continued from page 14.)

a considerable number of them being quite new. Monsieur LINDEN has decided to pay particular attention to this class of plants, which have lost considerably in popular favour, chiefly because collectors have neglected them for Orchids. He has already secured a large number of new things, which, unless I am very much mistaken, are certain eventually to meet with general favour among lovers of exotic plants. At present I can only refer to them thus vaguely.

By their work in the introduction and distribution of plants alone, the Messrs. LINDEN have won for themselves a reputation of the very highest standing among European horticulturists. Besides this, they have enriched the literature of the garden by their publications, of which *Lindenia* is the most meritorious, the *Illustration horticole* and the *Journal des Orchidées* being also useful to practical men.

Monsieur LUCIEN LINDEN has also invented a boiler for heating plant-houses which is likely to become a powerful rival to the best of boilers in use at present. It may be described as a combination tubular and saddle, with an arrangement which insures the exhaustion of all the fire-heat before it leaves the boiler, and the economy of fuel. For large structures, where much piping is necessary, this boiler is likely to become popular.

To those who want to look at all the best Orchids grown, as only few can grow them, I would recommend a visit to Monsieur LINDEN's establishment. Altogether, this nursery is one of the most instructive as well as one of the most delightful to be found in Europe.

VISITOR.

(Extracted from the *Garden and Forest of New-York*, May 27th 1891.)

CATTLEYA × BRYMERIANA RCHB. F.

PL. CCCXLIII.

CATTLEYA × BRYMERIANA RCHB. F.

Mr. W. E. BRYMER'S CATTLEYA.

CATTLEYA. Vide *Lindenia,* Engl. ed., vol. I, p. 7.

Cattleya × *Brymeriana.* Pseudobulbi clavati, diphylli. Folia oblonga, obtusa, coriacea. Scapus 4-5-florus. Spatha oblonga, subacuta. Flores speciosi. Sepala lanceolato-oblonga, apiculata, lateralia subfalcata. Petala elliptico-oblonga subobtusa, leviter undulata. Labellum trilobum, lobis lateralibus rotundatis obtusis crenulatis, intermedio obcordato v. transverse oblongo profunde emarginato crenulato. Columna clavata.

Cattleya × *Brymeriana* RCHB. F. in *Gard. Chron.,* 1883, pt. II, p. 492. — ID., 1884, pt. II, p. 520. — WARN. & WILL. *Orchid Album,* IV, t. 184. — VEITCH *Man. Orch.,* pt. II, p. 86.

This handsome Cattleya is a native of the Rio Negro district, in Brazil, and was originally introduced to cultivation by Messrs HUGH Low & C°, of Clapton, through their collector WHITE. It flowered for the first time in 1883, and was dedicated by REICHENBACH to Mr. W. E. BRYMER, of Islington House, Dorchester.

It is a natural hybrid between *Cattleya superba* and *C. Eldorado*, and occurs where these two species grow together in the district above named. It combines the characters of these two species, though the influence of *C. superba* decidedly preponderates. The two-leaved pseudobulb bears a raceme of several handsome flowers about five inches across. The sepals and petals are of a light purplish-rose, and the lip deep magenta purple, with a large deep orange-yellow throat, whose outline is very sharply defined.

Like many other natural hybrids it is comparatively rare, yet a considerable number of individuals are known, and it would appear that the two species hybridise together very readily.

In all probability the particular insects which fertilise the flowers visit the two species indiscriminately when flowers of both are accessible, and thus the pollen of one will be carried to the stigma of the other, and cross-fertilisation effected. It can hardly fail that some of the capsules will produce fertile seeds, which may ultimately find a suitable place to germinate upon, and in due time produce flowers. Thus some of the experiments conducted by hybridists at home may be effected on a large scale in a state of nature, and if only a small percentage of the hybrid seed ultimately reaches the flowering stage the number of plants found may yet be considerable. To this may be attributed the fact that several undoubted natural hybrids are by no means uncommon. If two species

which grow together are dependent on insects for their fertilisation, and are capable of hybridising with each other, the chances are that cross fertilisation will often be effected.

We are indebted to E. S. RAND Esq. Para. Brazil for the plant from which we have made our illustration.

R. A. ROLFE.

CATTLEYA REX

AND THE ENGLISH AND AMERICAN PRESS.

At the meeting of the Royal Horticultural Society, held at Drill Hall on July 26 last, *Cattleya Rex* was exhibited by WELBORE ELLIS, Esq., Hazelbourne, Dorking, and by H. M. POLLETT, Esq., Fernside Bickley. From the following extracts the readers may conclude how highly the plant was appreciated :

" ...Both plants showed the accuracy of the illustration, and the distinctness of the plant itself, but neither, it was said, were so good as the original, or the one which flowered with Mr. STATTER. A First-class certificate was awarded. "

(*Gardeners' Chronicle,* July 30.)

" Mr. H. M. POLLETT and Mr. ELLIS submitted the exquisitely beautiful *Cattleya Rex*, which was distinguished by the award of a first-class certificate. "

(*Gardeners' Magazine,* July 30.)

" First-class certificates were awarded to... *Cattleya Rex*, of which two plants from separate growers were shown, the one a better variety than the other; the flowers are of medium size, in form resembling those of *C. Mendeli;* the sepals and petals are of a pale buff shade, whilst the lip partakes much of a highly coloured form of *C. Mossiae*, but veined somewhat after that of *C. Dowiana.* "

(*The Garden,* July 30.)

" *Cattley Rex* was shown in flower by two amateurs, and both plants were good. There can be no doubt now of the distinctness of this Cattleya from all others. It has the pseudo-bulbs and leaves of *C. gigas* and a scape a six inches long bearing four flowers, the sepals of which are three-fourths of an inch wide, the petals an inch in width, and the lip about the size of that of *C. Percivalliana*, very wavy and crisped; the colors are rich red-brown in the throat, crimson in front, with numerous reticulating lines of gold. The flower is more like that of the rare *C. iricolor* than any other known to me. The Messrs LINDEN are to be congratulated on having introduced such a distinct and handsome flowered Cattleya. "

W. WATSON.

(*Garden and Forest of New-York,* August 17, 1892.)

CYRTOPODIUM PUNCTATUM LINDL.

PL. CCCXLIV.

CYRTOPODIUM PUNCTATUM LINDL.

THE SPOTTED CYRTOPODIUM.

CYRTOPODIUM. Sepala libera, patentia, subaequalia, lateralia pedi columnae brevissime adnata. Petala sepalis similia v. paullo latiora brevioraque. Labellum pedi columnae affixum; lobi laterales latiusculi, erecti v. demum patentes, medius rotundatus, patens, integer, bilobus v. crispo-dentatus. Columna erecta, basi in pedem brevissime producta, semiteres, angulis acutis; clinandrium obliquum, integrum. Anthera terminalis, opercularis, incumbens, interdum stipitata, convexa v. dorso gibbosa, imperfecte bilocularis. Pollinia 2 v. 4, per paria plus minus connata, late ovoidea v. globosa, cerea, in anthera inappendiculata, anthera dehiscente glandulae rostelli latae fere membranaceae v. in stipitem brevem crassum productae affixa.

Herbae terrestres, rhizomate in pseudobulbos fusiformes incrassato. Folia longa, plicato-venosa, in petiolum contracta. Scapi erecti, elati, aphylli, plurivaginati. Racemus simplex v. ramosus, floribus mediocribus v. speciosis breviter pedicellatis. Bracteae ovato-oblongae v. lanceolatae, interdum coloratae.

Species circa 8, Americae tropicae latissime dispersae.

Cyrtopodium R. BR. in AIT. *Hort. Kew.*, ed. 2, V (1813), p. 216. — BENTH. et HOOK. F. *Gen. Plant.*, III, p. 541, pro parte.

Cyrtopodium punctatum. Pseudobulbi fusiformi-elongati, elati, 2-3 ped. alti. Folia lineari-lanceolata, acuminata. Scapus 2-3 ped. altus, supra medium paniculatus. Bracteae membranaceae, coloratae, magnae. Sepala patentia, lanceolato-oblonga, acuta, undulata. Petala obovata v. obovato-oblonga, obtusa, undulata. Labellum stipitatum, profunde trilobum, lobis lateralibus cuneato-obovatis incurvis, intermedio semicirculari v. transverse oblongo margine granuloso, disco basi calloso. Columna clavata, brevis.

Cyrtopodium punctatum LINDL. *Gen. et Sp. Orch.* (1833), p. 188. — ID., *Sert. Orch.*, t. 12. — *Bot. Mag.*, t. 3507. — *Fl. des Serres*, t. 2352. — RCHB. F. in WALP. *Ann.*, VI, p. 666. — WARN. et WILL. *Orchid Album*, V, t. 202. — *Orchidophile*, 1885, p. 270, cum. ic.

Epidendrum punctatum L. *Sp. Pl.*, ed. 2 (1762), p. 1349.

Cyrtopodium Saintlegerianum RCHB. F. in *Gard. Chron.*, 1885, pt. I, p. 756. — ID., 1888, pt. II, pp. 180, 181, fig. 20.

The noble species here figured was one of the earliest known tropical Orchids, as it was included by LINNŒUS in his genus Epidendrum in 1762, and flowered in the Glasgow Botanic Garden as long ago as the spring of 1835. This particular plant was sent from Brazil some years previously by SWAINSON, but for a considerable time showed no disposition to bloom.

Cyrtopodium punctatum is very widely diffused in tropical America, having been found in Brazil (where it is very common), Guiana, New Granada, the West Indies, Mexico and Central America, and lastly in Paraguay. In the latter locality it was discovered by the French traveller Mr. SAINT LEGER (who also discovered *Oncidium Jonesianum*), and when sent home was described as a new species under the name of *C. Saintlegerianum* RCHB. F., though there is no character to separate it from the old *C. punctatum*, and it cannot be maintained even as a variety. The species when well grown is a majestic plant,

with panicles transversely barred with brownish-crimson, the petals yellow with very few spots, and the lip margined with reddish brown.

The genus is one of the most majestic of tropical Orchids, but the plants require a considerable amount of room to develop themselves properly, and therefore they are not so widely cultivated as their merits deserve. The present species and *C. Andersonii* are the best known, but there are about half-a-dozen others, not including Cyrtopera, which has been wrongly united with the genus.

R. A. Rolfe.

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4th Volume

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PART XXI. OCTOBER 1892.

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BULBOPHYLLUM DEAREI RCHB. F.

A. Goossens pinx. P. De Pannemaeker chrom.

PL. CCCXLV.

BULBOPHYLLUM DEAREI RCHB. F.

COLONEL DEARE'S BULBOPHYLLUM.

BULBOPHYLLUM. Sepalum posticum liberum, erectum v. patens, lateralia basi oblique dilatata et pedi columnae adnata, mentum breve gibbiforme v. parum prominens formantia. Petala sepalis saepius parviora v. angustiora. Labellum cum pede columnae articulatum v. mobile, in pedem incumbens; lobi laterales parvi, saepius auriculiformes v. dentiformes, medius integer v. plumoso-ciliatus, recurvus, angustus v. latiusculus, saepe varie incrassatus v. medio lamellatus. Columna erecta, saepius brevis, basi in pedem longiusculum producta, superne bialata; clinandrium breve antice bibrachiatum v. bidentatum, et interdum alae columnae infra brachia utrinque dente minore appendiculatae. Anthera terminalis, opercularis, incumbens, saepius bilocularis; pollinia cerea, ad normam 4, per paria in loculis segregata, saepe tamen cujusve paris plus minus connata, haec etiam interdum dorso connata.

Herbae caule seu rhizomate in saxa arboresque repente radicante, vaginis scariosis plus minus obtecto. Pseudobulbi ad axillas vaginarum sessiles, monophylli v. diphylli. Scapi floriferi ad latera pseudobulborum v. rarius in rhizomate sparsi, aphyllis simplices, basi sparse v. multo vaginati. Flores parvi, minuti v. rarius magni, racemosi, umbellati v. rarius solitarii. Bracteae saepius parvae, in paucis speciebus majores imbricataeque, rarius distichae.

Species ad 250, pro maxima parte per regiones tropicae Africae et Asiae dispersae, perpaucae Austro-Americanae v. Australianae, una sola in Nova Zealandia obvia.

Bulbophyllum THOUARS, *Orch. Iles Afr.*, tt. 93-97. — BENTH. et HOOK. F. *Gen. Plant.*, III, p. 501.

Bulbophyllum Dearei. Pseudobulbi caespitosi, ovoidei, monophylli. Folia oblonga, subacuta, 8-15 cm. longa. Scapi erecti, graciles, 10-12 cm. longi, uniflori. Flores speciosi. Sepalum posticum elliptico-oblongum, acutum, erectum, 3.5-4.5 cm. longum; lateralia falcata, lanceolata, acuta, postico paullo breviora. Petala reflexa, lineari-lanceolata, acuta 3-3.5 cm. longa. Labellum 1 cm. longum, basi profunde sagittato-cordatum, carnosum, dein late reniformi-triangulum, membranaceum, apice reflexum. Columna brevissima, alis obtusis.

Bulbophyllum Dearei RCHB. F. in *Flora*, LXXI (1888), p. 108. — VEITCH *Man. Orch.*, pt. III, p. 96.

Sarcopodium Dearei HORT. *Gard. Chron.*, 1883, pt. II, p. 108, fig. 17.

This handsome Bulbophyllum, one of the few to which the term can fairly be applied, flowered in the collection of Lieut. Colonel DEARE, of Englefield Green, near Egham, in 1883, when it was exhibited at a meeting of the Royal Horticultural Society under the name of *Sarcopodium Dearei*, and afterwards figured and described in the *Gardeners' Chronicle*. It was introduced from Borneo. Some few years later a second habitat was found, as plants were introduced from one of the south Philippine Islands, and though at first described as a new species it has proved to be identical with the Bornean plant. It is one of the few Bulbophyllums which has received the award of a First-class Certificate from the Royal Horticultural Society.

It is a small tufted plant, with ovoid monophyllous pseudobulbs, oblong coriaceous leaves, and single flowered scapes as long as or slightly longer than the leaves. The flowers are large and very prettily coloured; the dorsal sepal is tawny yellow with reddish brown veins connected by similar transverse ones, and forming an elegant network; the two lateral sepals are yellow stained with dark purple; and the petals lightish yellow somewhat veined with brown.

The lip is creamy white, spotted with dark purple at the base, and is delicately poised at the tip of the foot of the column, the balance being kept by the fleshy basal lobes. It moves backwards and forwards with the slighest touch, an arrangement evidently connected with the fertilisation of the flowers by insects.

R. A. Rolfe.

A NEW CONSERVATORY AT « L'HORTICULTURE INTERNATIONALE » (Linden), Brussels. — A very pleasing transformation has been effected in this large Brussels establishment. An extensive building directly contiguous to the entrance has been laid out, with the object of providing a permanent exhibition of orchids in flower. The plants are arranged on either side on large stages. The walls are covered with an elegant trellis work adorned with climbing plants, Aristolochias, Passifloras, Bomarias, etc. This compact annex, filled with *Cattleya aurea*, *Eldorado*, *gigas* (from a large importation received some months ago), *guttata*, *granulosa*, Cypripediums, divers Odontoglossums, Dendrobiums, *Vanda coerulea*, Oncidiums, etc., presents a splendid sight and calls forth the admiration of all visitors. They have been specially installed here in order to enable visitors from a distance, whose time is limited, to examine the principal novelties or rarities in flower without being obliged to devote at each visit many hours to go through all the houses.

On the other hand it was necessary to provide a place for importations, without encroachment on other space. For these a part of the old potting-shed, over 150 feet long, has been absorbed. This part is now filled with a large stage, and forms an immense house of exceptional size, in which are lodged about 10,000 newly imported Orchids. The work, preparation of compost, repotting, etc., is now done in another part of the establishment set apart for this purpose.

CATTLEYA ACLANDIAE LINDL.

A. Goossens pinx. *J. Gojart chrom.*

PL. CCCXLVI.

CATTLEYA ACLANDIAE LINDL.

LADY ACLAND'S CATTLEYA.

CATTLEYA. Vide *Lindenia,* Engl. ed., vol. I, p. 7.

Cattleya Aclandiae. Pseudobulbi subfusiformes, angusti, breves, sulcati, diphylli. Folia elliptica v. elliptico-oblonga, obtusa, coriacea. Flores gemini v. solitarii, speciosi. Sepala lanceolato-oblonga, subobtusa. Petala sepalis subsimilia. Labellum panduratum, lobis lateralibus parvis rotundatis, lobo medio amplo reniformi-orbiculari emarginato, margine eroso. Columna crasso-clavata.

Cattleya Aclandiae LINDL. *Bot. Reg.,* XXVI (1840), t. 48. — *Bot. Mag.,* t. 5039. — PAXT. *Mag. Bot.,* IX, pp. 1,2, cum ic. et xyl. — *Fl. des Serres,* t. 674. — BATEM. *Sec. Cent. Orch.,* t. 119. — *Ill. Hort.,* XV, t. 565. — WARN. & WILL. *Orch. Album,* II, t. 69. — *Orchidophile,* 1885, pp. 365, 366, cum xyl. — VEITCH *Man. Orch.,* pt. II, p. 29, cum xyl. — *Gard. Chron.,* 1885, pt. I, p. 544, fig. 100 (fruct.). — ROLFE in *Gard. Chron.,* 1889, pt. I, p. 491.

Epidendrum Aclandiae RCHB. F. in *Walp. Ann.,* VI, p. 312.

This very distinct and handsome little Cattleya flowered for the first time in Europe in the collection of Sir THOMAS ACLAND, of Killerton, Devon, in July, 1840, and was immediately afterwards described by Dr LINDLEY, in honour of Lady ACLAND. This lady we are told prepared the coloured drawing which appeared in the *Botanical Register* at that time. The plant was received from Brazil in October of the previous year, where it was discovered by Lieut. JAMES, of H. M. Ship *Spey*, doubtless in the province of Bahia, which is now known to be its native habitat. Here it is said to grow on the small isolated trees that are scattered over the campos, in the neighbourhood of the Atlantic Ocean, over which the sea breeze constantly blows.

LINDLEY associated it with his *C. bicolor*, as the second member of a small section of the genus, distinguished by the base of the lip being too narrow and too spreading to enfold the column. *C. Schroederiana* RCHB. F. and *C. velutina* RCHB. F., are more recent members of the same group.

C. Aclandiae is one of the smallest species of the genus, and comes from a warm region. It should therefore be placed as near the glass as possible, and in the warmest end of the house. It is recommended to grow it in teak baskets or shallow pans, with a very small quantity of compost, which, however, should be renewed as often as it shows signs of decay or exhaustion. Liberal waterings should be given during the growing season. It frequently produces new growths and flowers twice in one year, first in May and June and again late in the autumn. The flowers are large and handsome, three to four inches in diameter, with the sepals and petals yellowish green, transversely spotted and blotched

with blackish purple, and the lip bright rose-purple, with some darker veins. In some varieties the ground colour of the lip is nearly white. It is still comparatively rare in cultivation.

R. A. Rolfe.

SEASONABLE ADVICE ON THE CULTURE OF SPRING-FLOWERING CATTLEYAS.

The *Journal des Orchidées* has already at different times given some useful information respecting the culture of Cattleyas. We must again insist on a point which is of great importance at the present time of year, when the growth of the new bulbs is completed. About the middle of September these bulbs have generally arrived at their complete development, thanks to an abundance of heat and moisture down to that time. Growth being completed, we must begin to diminish considerably the amount of humidity, to decrease the temperature, and to give plenty of air. The point now is to mature the growths and prepare them for a strong and vigorous flowering. We ventilate largely the house in which these Cattleyas are grown up to the end of October, and also if the fine weather is prolonged far into the month of November. Throughout the winter these spring-flowering Cattleyas should be kept in a medium temperature, ranging from 10° to 15° Centigrade (50° to 59° Fahrenheit), with a corresponding amount of humidity. The plants should be lightly watered once or twice a week, but only in sufficient quantity to prevent the bulbs from shrivelling.

The results of good culture after the manner described will be an abundant flowering, and highly coloured flowers.

Gardeners will also do well to remember that these Cattleyas should not now be repotted; when they require it, it should be done just after the flowering period.

The successive use of the stalks and midribs of tobacco (*), or some efficient substitute, on the hot-water pipes will completely destroy insects in the house, and is particularly recommended at this season of the year for Cattleyas and other Orchids.

The Cattleya house should be kept as light as possible during the winter.

(Extracted from the *Journal des Orchidées*.)

(*) In Belgium refuse tobacco can be obtained in this form very cheap, but we believe not in England, where a substitute has to be provided. *Eds.*

LAELIO-CATTLEYA × ELEGANS ROLFE var. BROOMEANA HORT.

PL. CCCXLVII.

LAELIO-CATTLEYA × ELEGANS ROLFE var. BROOMEANA HORT.

THE ELEGANT LAELIO-CATTLEYA, Mr. BROOME'S VARIETY.

LAELIO-CATTLEYA. Vide *Lindenia,* Engl. ed., vol. II, p. 25.

Laelio-Cattleya × *elegans.* Hybridum naturale inter *Laeliam purpuratam* et *Cattleyam Leopoldii* productum. Pseudobulbi elongati, teretes, mono- v. diphylli. Folia lineari-oblonga, coriacea. Spatha lineari-oblonga. Racemi pauciflori. Flores speciosi. Sepala oblongo-lanceolata, acuta. Petala sepalis latiora, elliptico-lanceolata, acuta. Labellum trilobum, lobis lateralibus rotundato-oblongis obtusis columnam involventibus, intermedio late rotundato v. transverse oblongo emarginato undulato, disco laeviusculo. Columna clavata.

Laelio-Cattleya × *elegans* ROLFE in *Gard. Chron.,* 1889, pt. II, p. 78. — ID. in *Reichenbachia,* ser. 2, vol. I, p. 43, t. 20 *(var. blenheimensis).*

Cattleya elegans C. MORR. in *Ann. de Gand,* IV (1848), p. 93, t. 185. – *Pescatorea,* t. 23. — *Bot. Mag.,* t. 4700. — *Ill. Hort.,* XI, t. 402. — LINDL. in *Gard. Chron.,* 1853, p. 582.

Laelia elegans RCHB. F. in OTTO & DIETR. *Allg. Gartenz.,* XXIII (1855), p. 242. — DE PUYDT, *Orch.,* t. 21.

Bletia elegans RCHB. F. in *Walp. Ann.,* VI, p. 427.

Laelia Brysiana LEM. in *Ill. Hort.,* IV (1857), t. 134.

Laelia Turneri WARN. *Sel. Orch.,* ser. I, t. 12.

Var. Broomeana. Sepala et petala roseo-purpurea. Labellum atropurpureum, basi pallidum.

Var. Broomeana HORT.

Laelia elegans var. Broomeana O'BRIEN in *Gard. Chron.,* 1890, pt. II, p. 214. — WARN. & WILL. *Orchid Album,* IX, t. 413.

Laelio-Cattleya × *elegans*, usually known in gardens as *Laelia elegans*, is now generally admitted to be a natural hybrid between *Laelia purpurata* and *Cattleya Leopoldii*, and is found where these two species grow together. It was originally discovered in 1847, in the island of Santa Catherina, South Brazil, by DEVOS, who sent it to the establishment of the late M. AMBROISE VERSCHAFFELT, of Ghent, where it flowered in the following year. Its hybrid origin was not then suspected, and it was described under the name of *Cattleya elegans*, by the late CHARLES MORREN. LINDLEY soon afterwards pointed out the presence of four small additional pollen masses, and REICHENBACH transferred the plant to Laelia. It is a native of the island of Santa Catherina, and of the opposite coast of South Brazil.

Like all hybrids it has proved extremely variable, and a large number of forms have received distinctive names. The one here figured appeared in the collection of JOSEPH BROOME, Esq., of Llandudno, to whom it is appropriately dedicated and has been pronounced to be the most brilliant variety which has yet appeared. The sepals and petals are of a beautiful rose-purple, with a few darker spots on the disc, while the lip is of an intense glowing purplish crimson, except the lower half of the tube, which is sulphur-white veined with light purple.

The study of these natural hybrids is a matter of very great interest. For a long time many people refused to believe in them, until the stern philosophy of facts became too strong to be set aside. Yet it must be admitted there are some very difficult questions involved, and a correct opinion can only be formed after careful consideration of all the facts. Fortunately experiments at home are continually throwing more light on the question, and it is perhaps not too much to hope that some one will yet attempt to prove the origin of the present plant by direct experiment. There can be little doubt that any hybridist who takes the matter up, and crosses *Laelia purpurata* with *Cattleya Leopoldii* and *C. intermedia*, will in one time be rewarded with the flowers of *Laelio-Cattleya elegans* and *L.-C.* × *Schilleriana*.

R. A. Rolfe.

FERNERY ARRANGED WITH ORCHIDS AT " L'HORTICULTURE INTERNATIONALE, " Brussels. — Our supplementary illustration gives a view of the fern rockery in the establishment of " L'Horticulture Internationale, " Parc Leopold, Brussels, in which the Messrs Linden so cleverly combine beauty and utility. As will be seen by reference to our illustration (see *Gardeners' Chronicle*, page 373, September 24, 1892), the permamently-planted rockery is still further beautificied by arranging orchids in flower among the elegant foliage of the ferns and the variously-tinted leaves of other plants. Similar groups may be formed in other parts of the establishment, and everywhere order, cleanliness, and artistic arrangements is to be found in the extensive premises of this, the most important of Continental nurseries, in which the culture of plants under glass is the chief object in view.

(The *Gardeners' Chronicle,* page 373, September 24, 1892.)

ANGULOA UNIFLORA RUIZ et PAVON var. EBURNEA HORT.

A. Goossens pinx. P. De Pannemaeker chrom.

PL. CCCLVIII.

ANGULOA UNIFLORA RUIZ et PAVON var. EBURNEA HORT.

THE ONE-FLOWERED ANGULOA, IVORY WHITE VARIETY.

ANGULOA. Vide *Lindenia,* Engl. ed., vol. II, p. 47.

Anguloa uniflora. Pseudobulbi conico-ovoidei. Folia late elliptico-oblanceolata, acuta, plicato-venosa. Pedunculus uniflorus, squamis basi imbricatis inflato-tubulosis vaginatis. Bractea spathacea, acuta. Sepala ovata, acuminata, cucullato-concava. Petala conformia, minora. Labellum trilobum, lobis lateralibus amplis rotundatis obtusissimis, intermedio lineari-angusto reflexo-revoluto, callo carnoso lato retuso. Columna clavata, apice laciniis duabus subulatis aucta.

Anguloa uniflora RUIZ et PAVON *Syst. Veg. Fl. Peruv. et Chil.* (1798), p. 228. — LINDL. *Gen. & Sp. Orch.*, p. 160. — ID. *Bot. Reg.*, XXX, t. 60. — *Bot. Mag.*, t. 4807. — RCHB. F. in *Bonplandia,* II, p. 277. — ID. in *Walp. Ann.*, VI, p. 599. — REGEL *Gartenflora,* XXXIII, p. 353, t. 1137. — *Lindenia,* III, p. 11, t. 100. — *Ill. Hort.*, XXXVII, p. 37, t. 101.

A. virginalis HORT. *Gard. Chron.*, 1851, p. 392.

Var. eburnea. Flores albi immaculati.

Var. eburnea HORT.

A. eburnea WARN. & WILL. *Orch. Album,* III, t. 133.

Some time ago *Anguloa uniflora var. Treyeranii* was figured in this work (vol. II, p. 47, t. 310), and now a second variety is given. The former one was characterised by the possession of an unusual number of spots near the base of the lip; but in the present one not only are these absent, but also the minute pink spots which are often found on the sepals and petals, thus leaving the flower of a uniform ivory-white, in allusion to which the name was given. It possesses no other distinguishing character. It was described from the collection of Sir TREVOR LAWRENCE, of Burford Lodge, Dorking.

The species is rather widely diffused, being found from Southern Peru to the north of New Granada, and probably into Venezuela, yet it seems subject to very little variation, and that chiefly in colour. For nearly half-a-century nothing was known of it beyond the original description, when suddenly in 1844 it flowered among the collections sent home by M. LINDEN, together with *A. Clowesii* and *A. Ruckeri,* since which time no new species has appeared. Two or three forms which have been described as such have proved to be only varieties of the older species. Besides these, two natural hybrids have since appeared, one of which as again been lost sight of. The other, *Anguloa* × *media* RCHB. F., is one of the few hybrids which has both originated in a wild state, and been raised artificially under cultivation.

R. A. ROLFE.

AMATEURS OF ORCHIDS will learn with pleasure that L'HORTICULTURE INTERNATIONALE (LINDEN) has received a fine importation of the famous *Laelia grandis tenebrosa*, one of the most beautiful Orchids known. Owing to its being distributed at a comparatively low price, it can now be diffused through all collections, and may be represented by numerous examples. There are numerous varieties, and all very pretty.

* * *

CATTLEYA LINDENIAE. — We may also point out the discovery by the collectors of Mssrs LINDEN, directors of L'HORTICULTURE INTERNATIONALE, of a new sensation; a Cattleya with large pure white flowers constituting a new type, and not only a variety, and which the collectors have already named *C. Lindeniae*. This will be a fitting conclusion of the year, and one of the richest acquisitions of the Orchid family.

* * *

THE NEW CATTLEYA ALEXANDRAE presents a very curious phenomenon, which we think has not been previously observed in any other Cattleya. Many plants of this species in the houses of L'HORTICULTURE INTERNATIONALE have produced at various heights, on the nodes of the old bulbs, adventition growths furnished with roots, like certain Dendrobiums. One plant also has produced a growth at the summit of the bulb, arising from the base of an old dry flower-stalk.

This fact is very curious and probably new. It augurs well for the vigour of growth of this new species.

THE " ORCHIDÉENNE " OF BRUSSELS.

THIRTY-NINTH MEETING.

The thirty-ninth Meeting, held on October 9 th. in the corridors of L'HORTICULTURE INTERNATIONALE, was a great success. Notwithstanding the time of year and the unfavourable season, many of the exhibitors contributed some beautiful exhibits. This is not yet the epoch of splendour of the winter-flowering Cattleyas, but the various exhibits were nearly all very remarkable.

Among the plants the most admired, we may note :

The superb specimen of *Cypripedium oenanthum,* bearing twenty-four flowers, a number which is rarely seen in this hybrid; *C. Argus,* of exquisite shape; *C.* × *Warocqueanum,* very brightly coloured, and bearing on it the markings so characteristic of *C. Fairieanum;* two *Odontoglossum crispum* richly spotted and *Laelia Dayana* in a very large tuft, covered with flowers of excellent dark colour, exhibited by M. G. WAROCQUÉ;

The new and very curious *Odontoglossum Insleayi var. Imschootianum,* of a clear yellow colour, except the lip, on which is a light shading of feeble traces of spots near the margin, which in the type are of a bright red; this remarkable variety is to *O. Insleayi* what *O. Masereelianum* is to *O. sceptrum; Cattleya aurea, Odontoglossum bictoniense album,* well flowered; *O. Insleayi leopardinum,* of a beautiful bright colour; *Cattleya Loddigesi violacea,* bearing a cluster of numerous beautiful flowers, and the superb *Miltonia candida grandiflora,* with broad segments, of a uniform clear brown, and the involute lip white, with a light trace of reddish violet in the middle, exhibited by M. A. VAN IMSCHOOT;

The rare *Miltonia Schröderi,* with the lip richly spotted with bright crimson-red, from M. DE LANSBERGE;

Dendrobium formosum giganteum covered with flowers of very large size, and *Cypripedium Curtisi,* of excellent shape, from M. F. PAUWELS;

A magnificent clump of *Oncidium ornithorhynchum,* presenting a thick bush of flower-spikes entirely covered with buds and flowers, and of a floribundity which we think we have never seen equalled, exhibited by M. CH. VAN WAMBEKE;

Oncidium crispum, superbly flowered, *Sophronitis grandiflora* and the beautiful *Lycaste Skinneri,* from Dr CAPART;

The charming *Epidendrum sp.,* with flowers of a dull reddish purple, with the lip bright red, from M. GARDEN;

Two interesting *Cypripedium hybrids* (*Chantini* × *callosum* and *insigne* × *Ashburtonense Annaerti*) and *Oncidium macranthum,* with flowers of very large size, from M. MOENS;

Cattleya Warocqueana, of superb form, *C. chrysotoxa,* with petals and sepals of a light and very elegant colour, *C. gigas, Zygopetalum Lindeniae, Isochilus graminifolius, Zygopetalum Gautieri, Warscewiczella Lindeni, Cypripedium marmorophyllum,*

C. oenanthum superbum, C. insigne Moensi, Selenipedium Schomburgki, Odontoglossum sp. nova, O. grande, with flowers of very bright colour, *Vanda tricolor planilabris, Dendrobium sp. nova,* with flowers of a very light yellow relieved with red, very attractive, *Odontoglossum crispum maculatum,* richly spotted with bright brown, from M. LINDEN.

The jury, composed of MM. J. LINDEN, President, CH. DE BOSSCHERE, Secretary, A. HUYBRECHTS, F. KEGELJAN, MASSANGE DE LOUVREX, DE MEULENAERE, RODIGAS, DU TRIEU DE TERDONCK, A. VAN IMSCHOOT and VASSEUR, made the following awards : —

Botanical Certificates

To *Isochilus graminifolius,* from M. LINDEN;
Epidendrum sp., from M. GARDEN.

First-class Diplomas of Honour

To *Odontoglossum Insleayi var. Imschootianum,* from M. A. VAN IMSCHOOT, *unanimously;*
Cypripedium × *Warocqueanum,* from M. G. WAROCQUÉ, *unanimously.*

First-class Certificates of Merit

To *Odontoglossum Insleayi leopardinum,* from M. A. VAN IMSCHOOT;
Cattleya aurea, from M. A. VAN IMSCHOOT;
Dendrobium formosum giganteum, from M. F. PAUWELS;
Cattleya chrysotoxa, from M. LINDEN;
Cattleya Loddigesi violacea, from M. A. VAN IMSCHOOT.

Second-class Certificates of Merit

To *Miltonia candida grandiflora,* from M. A. VAN IMSCHOOT;
Cattleya Warocqueana, from M. LINDEN.

First-class Cultural Certificates

To *Cypripedium oenanthum superbum,* from M. G. WAROCQUÉ, *unanimously and by acclamation;*
Oncidium ornithorhynchum, from M. CH. VAN WAMBEKE:
Laelia Dayana, from M. G. WAROCQUÉ.

☞ The next Meeting will be held on Sunday, Nov. 13 th.
The Exhibition will remain open during Sunday and Monday, Nov. 13 th. and 14 th.

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PART XXII. NOVEMBER 1892.

LINDENIA

ICONOGRAPHY

OF ORCHIDS

CONDUCTED BY

J. LINDEN, LUCIEN LINDEN and EM. RODIGAS.

THE COLOURED PORTRAITS BY

P. DE PANNEMAEKER, A. GOOSSENS and J. GOFFART.

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DENDROBIUM MACCARTHIAE THWAITES

PL. CCCXLIX.

DENDROBIUM MACCARTHIAE THWAITES.

Mrs MACCARTHY'S DENDROBIUM.

DENDROBIUM. Vide *Lindenia,* Engl. ed., vol. I, p. 37.

Dendrobium MacCarthiae. Pseudobulbi subpenduli, flagelliformes, teretes, striati, versus apicem foliati, 0.3-0.6 m. longi, nodis parce tumidis. Folia pauca, lanceolata, acuta, 6-10 cm. longa. Racemi laterales, 2-5-flori, pedicellis gracilibus. Flores speciosi, pallide purpurei. Sepala oblongo-lanceolata, acuta. Petala subaequilonga, latiora. Labellum subtrilobum v. subtrapeziforme, apice subacuta v. subrotundata, disco atropurpureo. Columna albida, subquadrata. Mentum conicum, obtusum.

Dendrobium MacCarthiae THWAITES in HOOK. *Bot. Mag.*, LXXXI (1855), t. 4886. — ID., *Enum. Ceyl. Pl.*, p. 297. — LINDL. in *Gard. Chron.*, 1856, p. 692. — BATEM. *Sec. Cent. Orch.*, t. 158. — WARN. & WILL. *Orch. Album*, VII, t. 319. — VEITCH *Man. Orch.*, pt. III, pp. 57, 58, cum xyl. — HOOK. F. *Fl. Brit. Ind.*, V, p. 736.

This handsome Dendrobium is a native of Ceylon, and was originally discovered by Dr THWAITES, Director of the Botanic Garden at Peradeniya, during a trip which he made into the jungles in the south of the island. Above eighty important additions to the Cingalese flora are said to have been made at the same time. Plants were sent to the Royal Gardens at Kew, in 1855, and it was figured in the *Botanical Magazine* in December of that year. Dr THWAITES remarks. — " This beautiful species of Dendrobium, which seems hitherto to have escaped the observation of botanists in Ceylon, occurs sparingly, pendant from the trunks of large trees, in the forests about Ratuopoora and towards Galle, where it seemed to be pretty generally known to the natives under the name of " *Wissakmal*, " the meaning of which is " *Rainy-month flower*, " or " *May-flower*. " He also pronounced it to be the most beautiful of Cingalese Orchids, and dedicated it to Mrs MACCARTHY, the wife of the Colonial Secretary of the island at the time of its discovery.

It is a rather slow grower, and requires considerable care in order to keep it healthy. The temperature of its native habitat is said to be very equable, and to range between about 24° and 30° Centigrade (75° to 86° Fahrenheit), and throughout the year showers are sufficiently numerous to keep delicate ferns quite fresh and growing, while during the rainy season, from May to about August the rainfall is abundant. These circumstances indicate the conditions under which it must be cultivated. It should receive plenty of heat, light and water. After its growths are finished, which is often rather late in the season, it should be removed to a somewhat cooler and drier situation, so that it may have a few weeks' rest. Care, however, must be taken to avoid letting the compost become too dry, so as to prevent the plant from shrivelling.

Dr Trimen, the present Director of the Botanic Garden at Peradeniya, states that this handsome Orchid is becoming very scarce, and will soon be extinct, but it is to be hoped that steps may be taken to prevent the occurrence of such a calamity. Ceylon has not a large number of handsome native Orchids, and the extermination of the best of them can surely be prevented if proper steps are taken before too late.

The stems are about eighteen to twenty-four inches long, of the thickness of a goose-quill, greyish white, with somewhat swollen blackish nodes, and linear-lanceolate acute leaves of three to four inches long. The flowers have a somewhat singular flattened appearance, and are borne in few-flowered pendulous racemes from the upper nodes. The sepals and petals are rosy mauve, suffused with white, the latter being sometimes striped along the middle with amethyst purple. The lip is nearly rhomboid in shape, convolute at the base, the colour delicate mauve-purple, striped with deep purple in front, and with a white zone surrounding the maroon-purple disc. In cultivation it generally flowers during June and July.

R. A. Rolfe.

ODONTOGLOSSUM NEBULOSUM LINDL.

A. Goossens pinx. *P. De Pannemaeker chrom.*

PL. CCCL.

ODONTOGLOSSUM NEBULOSUM LINDL.

THE CLOUDED ODONTOGLOSSUM.

ODONTOGLOSSUM. Vide *Lindenia,* Engl. ed., vol. I, p. 19.

Odontoglossum nebulosum. Pseudobulbi ovoidei v. ovoideo-oblongi, subcompressi, diphylli. Folia oblonga, subacuta, basi conduplicata. Scapi suberecti, apice subarcuati, 3-7-flori. Bracteae lanceolatae, acutae. Sepala oblongo-lanceolata, acuta, carinata. Petala late elliptica, subacuta, undulata, apice recurva. Labellum unguiculatum, ungue cucullato carnoso, limbo cordato-ovato obtuso crenato-undulato, lamellis duabus erectis dentibusque totidem anticis. Columna elongata, aptera.

Odontoglossum nebulosum LINDL. *Sert. Orch.,* sub t. 25. — ID. *Fol. Orch., Odont.,* p. 9. — RCHB. F. in *Gard. Chron.,* 1867, p. 572, *excl. syn.* — BATEM. *Monogr. Odont.,* t. 1. — *Flor. & Pomol.* 1869, pp. 14, 15, cum xyl. — *Gard. Chron.,* 1886, pt. I, pp. 596, 597, fig. 131. — VEITCH *Man. Orch.,* pt. I, p. 53, cum xyl.

Odontoglossum maxillare LEM. in *Ill. Hort.,* VI, t. 200, *non Lindl.*

Var. candidulum RCHB. F. in *Gard. Chron.,* 1867, p. 710, cum xyl. — ID. 1886, pt. I, p. 596, fig. 130.

Var. guttatum RCHB. F. ex ROD. in *Ill. Hort.,* XXXI, p. 93, t. 524.

Odontoglossum nebulosum was originally discovered by Baron KARWINSKY, in 1833. It was found growing upon oaks in the neighbourhood of Oaxaca, at about 5000 feet elevation. Four years later some plants were received from the same locality by Mr BATEMAN. They were imported during the severe winter of 1837-1838, and arrived quite uninjured. They began to grow satisfactorily in the stove, and all went well as long as the temperature did not rise beyond 70° Fahr., but when the hot weather came they all perished, together with many other cool Orchids, from excess of heat. In those early days the cultivation of cool Orchids was not understood, and multitudes of alpine species were literally stewed to death in the intensely heated structures in which they were placed.

Afterwards the plant was met with by GALEOTTI, and still later by GHIESBREGHT, who sent plants to M. LINDEN's establishment, at Brussels, where they flowered in 1856, and thus the species was successfully established in cultivation.

The variety *candidulum*, which is distinguished by the absence of blotches on the sepals and petals, was introduced by Messrs HUGH LOW & C°, and flowered in the collection of Mr DAY, at Tottenham.

The species is rather variable, both in the colour of the spots and in their arrangement. In some cases the spots are deep red-brown, in others quite pale green, while a variety of intermediate shades are met with. Generally the spots are confined to the lower half of the segments, but in some cases they spread over two-thirds of the entire surface; or, as already pointed out, they may be absent altogether.

It is allied to *Odontoglossum Cervantesii* and *O. Rossii*. From the former, which it much resembles, it is very easily distinguished by its relatively smaller lip, with very different unguis and crest, and by the total absence of the wings of the column. The latter has the sepals spotted almost or quite to the apex, and the large front lobe of the lip is unspotted, besides which the colours of the two are quite different.

O. nebulosum generally flowers during May and June, and requires similar treatment to *O. Rossii* and the other Mexican Odontoglots.

R. A. Rolfe.

BULBOPHYLLUM ANCEPS ROLFE

PL. CCCLI.

BULBOPHYLLUM ANCEPS ROLFE.

THE TWO-EDGED BULBOPHYLLUM.

BULBOPHYLLUM. Vide *Lindenia,* Engl. ed., vol. IV, p. 21.

Bulbophyllum anceps. Rhizoma repens. Pseudobulbi subapproximati, suborbiculares, compressi, ancipites, 2-4 cm. longi, monophylli. Folia oblonga v. lineari-oblonga, obtusa, 9-13 cm. longa, 2-3.5 cm. lata, basi attenuata. Scapi breves, horizontales, racemis 4-5 floribus. Bracteae 6-7 m. longae, basi spathaceae, apice ovato-lanceolatae, acutae. Pedicelli 3 cm. longi. Sepala patentia; posticum elliptico-oblongum, obtusum, fere 1 cm. longum; lateralia falcata, oblongo-linearia, subobtusa, basi paullo latiora, postico paullo longiora. Petala oblonga, obtusa, trinervia, 5 mm. longa. Labellum carnosum, recurvum, subobtusum, glabrum, basi latius, sagittato-cordato, disco obtuse bicarinato. Columna brevis, dentibus brevibus.

Bulbophyllum anceps ROLFE, *supra.*

This elegant little Bulbophyllum is a native of Borneo, whence it was introduced by Messrs LINDEN, L'HORTICULTURE INTERNATIONALE, Brussels, some time ago. It flowered in their collection during June of the present year.

It is very distinct, and among the multitude of described species it is not easy to indicate its affinities. Individually the flowers bear a considerable resemblance to those of *Bulbophyllum umbellatum* LINDL., which, however, has its flowers disposed in umbels, while those of *B. anceps* are arranged in a raceme. In all probability when the Bulbophyllums of the Malayan Archipelago are better known it will be found to have some closer allies than any described up to the present time. It may here be pointed out that most of the Javan Orchids described by BLUME nearly seventy years ago are still very imperfectly represented in Herbaria, indeed some of them appear to be absent altogether. There is a great difficulty in satisfactorily working out in detail the species of any group in the absence of a complete series of specimens, and when the description is limited to a few words which are applicable to several species it becomes well nigh impossible. I do not, however, find any description which applies to the present one.

Bulbophyllum anceps is a small species, with stoutish rhizomes, and adheres to the branches of the trees by its clinging roots. The pseudobulbs, which are borne at short intervals along the rhizome, are monophyllous, suborbicular in shape, much flattened, and curiously two-edged, in allusion to which the name is given. The leaf is sessile, its narrowed base being seated in a depression at the apex of the pseudobulb. It is oblong in shape, obtuse, and somewhat fleshy. The slender scapes are shorter than the leaves, and bear four or five flowers

on longish pedicels in a lax raceme. The ground colour is yellowish white, inclining to light yellow on the dorsal sepal and petals. The basal half of the lateral sepals bears about five maroon-purple stripes, the remainder, together with the dorsal sepal and petals, being covered with maroon-purple spots. The fleshy lip is dull maroon-purple in colour.

It is a botanical Orchid, and from its Bornean habitat will require to be cultivated in the warm house.

R. A. ROLFE.

CATTLEYA ALEXANDRAE has flowered for the first time in Europe, on October 8th., in the houses of L'HORTICULTURE INTERNATIONALE; and although it is not yet possible to judge it by its first nearly abortive flowering, yet it is now certain that the species is very variable. One of the plants has produced flowers which may be compared to those of *Cattleya Leopoldi*, except that the rose colour of the lip is of a paler shade, and the flower stem is also considerably longer. It will be interesting to establish the exact classification, from a botanical point of view, of this new Cattleya, when the imported plants are completely established in cultivation.

Our colleague Mr ROLFE informs us that a flower on one of the Kew plants expanded on October 23rd.; also that this plant has produced one of the axillary growths recently mentioned by us in the *Journal des Orchidées*, which phenomenon may also be observed in the collection of F. WIGAN, Esq., of Clare Lawn, East Sheen.

L. L.

STANHOPEA INSIGNIS FROST.

PL. CCCLII.

STANHOPEA INSIGNIS FROST.

THE DISTINGUISHED STANHOPEA.

STANHOPEA. Vide *Lindenia*, Engl. ed., vol. III, p. 9.

Stanhopea insignis. Pseudobulbi ovoidei, monophylli. Folia oblongo-lanceolata, acuta, plicata. Racemi penduli, 2-4 flori, vaginis spathaceis tecti. Bracteae ovatae, acutae, leviter furfuraceae. Ovarium obtuse triquetrum. Sepala patentia, ovata, subobtusa, concava. Petala lineari-oblonga, sub-obtusa, undulata, reflexa. Labellum carnosum, trilobum; hypochilio semigloboso ventricoso anguli antice obtusati cum denticulo antrorso; mesochilii cornubus falcato-incurvis; epichilio late subcordato-ovato, subacuto integro. Columna arcuata, basi, semiteres, sursum late alata, apice subacuta.

Stanhopea insignis FROST ex HOOK. *Bot. Mag.*, LVI (1829), tt. 2948-9. — LODD. *Bot. Cab.*, XX, t. 1985. — LINDL. *Bot. Reg.*, XXII, t. 1837 (excl. syn. et hab.). — ID. *Gen. & Sp. Orch.*, p. 157 (excl. syn. et hab.). — ID. *Fol. Orch., Stanhop.*, p. 1. — RCHB. *Fl. Exot.*, IV, t. 265. — RCHB. F. in WALP. *Ann.*, VI, p. 585. — ID. *Xen. Orch.*, I, p. 118. — ID. II, p. 157, t. 164, fig. 3-4 (flos abnormalis). — ID. in *Gard. Chron.*, 1880, pt. II, p. 326 (var. flava).

This handsome species is the one on which the genus was founded, upwards of sixty years ago. It flowered for the first time in October 1827, in the Royal Gardens, Kew, and was communicated to Sir WILLIAM HOOKER by Mr JOHN FROST, with the request that it might be called *Stanhopea insignis*, in compliment to the Earl of STANHOPE, president of the Medico-Botanical Society of London. It had been introduced some time previously, and flowered for the first time at the date above mentioned. The description, together with two coloured plates, appeared in the *Botanical Magazine*, in 1829.

Four years later it was figured by Messrs LODDIGES, in their *Botanical Cabinet*, having been introduced, as we afterwards learn, from the woods of Brazil.

In 1836 LINDLEY also gave a figure in the *Botanical Register*, from a specimen sent to him by Mr CATTLEY, with dissections prepared from a specimen in Lord FITZWILLIAM's collection. The locality and synonyms here given, as also in the same author's *Genera and Species of Orchidaceous Plants*, are, however, erroneous, and belong to *S. bucephalus* LINDL., a species originally found by HUMBOLDT and BONPLAND on the trunks of trees in shady woods near Cuença, in the province of Quito, in Ecuador.

According to REICHENBACH, *S. insignis* was also met with in Peru, by WARSCEWICZ, but its exact distribution seems to be very imperfectly known.

Its nearest ally seems to be *S. Warscewiczii* KLOTZSCH, which has falcate column wings, and a pair of teeth at the base of the hypochil, besides other differences in structure and colour.

S. insignis is one of the handsomest species of the genus. Its drooping raceme

bears from two to four large showy and very fragrant flowers. The sepals are of a pale dull yellow, sometimes almost creamy white, and covered with numerous purple spots and blotches, many of them ring-like in character. The sepals are more yellow, and with fewer blotches. The lip is whitish, spotted with purple, the hypochil being deeply stained with dull purple in addition.

Few Orchid flowers are more complex in structure than those of this genus, almost every part of which suggests a very high degree of specialisation. Their powerful perfume is evidently intended for the purpose of attracting insects, and Dr Cruger has recorded that in Trinidad the flowers of *Stanhopea grandiflora* are visited by a large bee, which graws away some of the cellular tissue of the labellum, and that he has seen the pollinia glued to its back. The same bee also visits the flowers of *Catasetum macrocarpum* and of a Gloxinia, both of which have a similar perfume to the Stanhopea. The stigma in this genus consists of a very narrow slit, and it is evident that the equally narrow pollinia must be carried there by insects specially adapted for the purpose. It would be interesting to learn something more about these plants and their insect visitors in a state of nature.

R. A. Rolfe.

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PART XXIII. DECEMBER 1892.

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CATTLEYA × HARDYANA RCHB. F. var. GARDENIANA HORT.

PL. CCCLIII.

CATTLEYA × HARDYANA RCHB. F. var. GARDENIANA HORT.

Mr HARDY'S CATTLEYA, GARDEN'S VARIETY.

CATTLEYA. Vide *Lindenia,* Engl. ed., vol. I, p. 7.

Cattleya × *Hardyana.* Pseudobulbi clavato-fusiformi, subcompressi, sulcati, monophylli Folia lineari-oblonga, obtusa, emarginata. Racemi 2-4 flori. Flores speciosissimi. Sepala lineari-lanceolata, acuta, apice recurva. Petala elliptico-ovata, obtusa, undulata. Labellum integrum, elliptico-oblongum, apice bilobum, valde undulatum. Columna clavata.

Cattleya × *Hardyana* WILLIAMS *Orch. Gr. Man.,* ed. 6, p. 633. — *Gard. Chron.,* 1885, pt. II, p. 206. — WARN. & WILL. *Orch. Album,* V, t. 231. — ROLFE in *Gard. Chron.,* 1889, pt. II, p. 560.

C. × *Massaiana* WILLIAMS *Orchid Album,* VIII, t. 362.

Nearly a year ago, a very handsome variety of *Cattleya* × *Hardyana* was figured and described in this work, under the name of *C.* × *Hardyana var. Laversinensis* (*supra* vol. II, p. 37, t. 305), and now we have another variation to record. It differs from the preceding one in the absence of the white marbling of the sepals and petals, and from both it and the original *C.* × *Hardyana* in the absence of the peculiar veining on either side of the disc of the lip, in which respect it approaches more nearly to *C. gigas*, one of its two parents.

As already pointed out, there is a district on the western Cordillera of New Granada, near Frontino, where *C. gigas* and *C. Dowiana aurea* grow together, and it was in an importation of these species that *C.* × *Hardyana* first came to light. From the outset, its intermediate character was too obvious to be overlooked, and thus was demonstrated the fact that the two species must have been crossed together by the insects on which they are dependent for fertilisation. That this is no rare occurrence is now clearly established, for since the original form appeared a considerable number of others have come to light, and the plant is now represented in many collections.

Like nearly all hybrids where the parents are at all distinct, a great range of variation is seen, some of them showing a near approach to one parent, while in others just the reverse takes place. Some forms of *C.* × *Hardyana* are among the most beautiful Cattleyas in existence, while others possess little value from the decorative standpoint. In these inferior forms the sepals and petals are of a very pale yellow, veined with light pink of a very washed-out shade, the two colours appearing to have neutralised each other. But when this marbling stands out clear and distinct, and the colours are well contrasted, the effect is superb. In the lip an equally wide range of variation is seen, but there is never the

washed-out appearance in this organ that is sometimes seen in the sepals and petals.

Some of the extreme forms of this hybrid are so diverse in character that one would scarcely at the outset suspect their common origin, and, as a matter of fact, more that one of them have at first received distinctive names. Yet on comparison they are seen to be connected by such a series of intermediate forms as to leave no doubt of their common parentage. The diversity is due to the varying combinations of the characters of the parent species, some forms showing a preponderance of those of the one parent, some of the other. It may be necessary to distinguish the most distinct forms by varietal names for horticultural purposes, but it is clear that all should be treated as forms of *C.* × *Hardyana*.

Our plate was prepared from an inflorescence kindly sent us by M. Garden, of Bois de Colombes, near Paris, a well-known Orchid-grower, in whose collection the plant recently flowered.

R. A. Rolfe.

MILTONIA VEXILLARIA BENTH. var. VIRGINALIS HORT.

A. Goossens pinx. *P. De Pannemacker chrom.*

PL. CCCLIV.

MILTONIA VEXILLARIA BENTH. var. VIRGINALIS HORT.

THE STANDARD MILTONIA, VIRGINAL VARIETY.

MILTONIA. Vide *Lindenia*, Engl. ed., vol. III, p. 47.

Miltonia vexillaria. Pseudobulbi parvi, anguste oblongi, compressi. Folia pedalia, lanceolato-linearia acuta. Scapi graciles, 4-6 flori. Flores maximi, plani, roseo suffusi, v. fere albidi. Sepala late obovato-oblonga, obtusa v. subacuta. Labellum maximum, orbiculare, apice bilobum, ima basi in unguem brevem contractum, ungue hastato angulis in cornua acuta adscendentia productis, disco paucicalloso. Columna brevissima, exalata.

Miltonia vexillaria BENTH. in *Journ. Linn. Soc.*, XVIII, p. 327. — NICHOLSON *Dict. Gard.*, pp. 368, 369, fig. 573. — *Bull. Soc. Tosc. Ortic.*, 1889, t. 11. — *Lindenia*, V, p. 21, t. 201 (var. superba). — *Reichenbachia*, ser. 2, I, p. 61, t. 29.

Odontoglossum vexillarium RCHB. F. in *Gard. Chron.*, 1867, p. 901. — ID., 1872, p. 667, fig. 163. — ID., 1873, p. 580, 644, fig. 123. — *Bot. Mag.*, t. 6037. — RCHB. F. *Xen. Orch.*, II, p. 190, t. 182. — BATEM. *Monogr. Odont.*, t. 29. — *Ill. Hort.*, n. s., XX, p. 10, t. 113. — *Revue Hort.*, 1876, p. 390, cum ic. — WARNER *Sel. Orch.*, II, t. 38. — *Belg. Hort.*, XXX, p. 527, t. 14. — *Fl. des Serres*, t. 2058. — *Fl. Mag.*, n. s., 1873, t. 73.

Miltonia vexillaria, the most beautiful and floriferous species in the genus, and one of the most popular of cool Orchids, was originally discovered by BOWMAN, on the western slopes of the Andes of New Granada, about the year 1866 or 1867. It was described in the latter year from a single dried flower, which came to Prof. REICHENBACH's hands under somewhat peculiar circumstances. Next it was rediscovered by WALLIS, when collecting for M. LINDEN, but owing to the delay and difficulties of transmission, the plants failed to reach Europe alive; similar disappointment attended ROEZL, who was commissioned by M. LINDEN to collect it, in 1871. In 1872 REICHENBACH wrote that this fairy of the primœval woods seemed doomed to certain destruction in the attempts to bring it to Europe alive. The first living plants were brought home by CHESTERTON, in 1872, for Messrs JAMES VEITCH & SONS, of Chelsea, where they flowered for the first time in April of the following year.

A very interesting account of the habitat of this plant is given by LEHMANN. Its southern limit is on the western slopes of the snow-capped " Huarmi-Urcu, " and the volcano of Coatacachi, in northern Ecuador. Here and on the western slopes of the volcanic peaks of Chiles, Cumbal and Mallama, in southern Colombia, occur the varieties *Lehmanni*, *albicans*, and *Measuresiana*. The species then spreads northwards along the central mountain region and the western slopes of the western Cordillera, as far as the sources of the rivers Sinu and San Jorge, in the province of Antioquia. Over this region it occurs in greater or less quantity in isolated patches.

The region in which it grows is well defined. With one exception, the

variety *albicans* which occurs at 4,000-4,500 feet elevation on the river Cuaiquer, the lower and higher limits of the species are almost every-where about 4,750 and 6,500 feet above sea level. It always occurs on the borders of the denser mountain forests, which have below them either open or park-like stretches covered with low bushes, or coarse savannah grass, and above, the extremely humid and almost impenetrable and luxuriant forests that cover the Cordillera at that altitude. The mean temperature of the year ranges from about 62° to 67° Fahr., and the extreme daily fluctuations from 53° to 77°. The hygrometric conditions are tolerably uniform throughout the year. Mists and showers are of almost daily occurrence, the showers being more copious in the wet season, but in the so-called dry season the air is only relatively less humid. Its reproductive powers appear to be considerable, as LEHMANN estimates that about 75 per cent. of the flowers produce capsules in a wild state, and that the seeds germinate easily and quickly, though many of the young plants perish.

The species presents a considerable range of colour variation, from white to bright rose, and a large number of forms have received distinctive names, though many of them pass into each other by almost insensible gradations. The variety here figured has large pure white flowers. The plant from which the drawing was made is in the excellent collection of M. DALLEMAGNE, a French amateur of Orchids.

R. A. ROLFE.

VANDA INSIGNIS BLUME

PL. CCCLV.

VANDA INSIGNIS BLUME.

THE REMARKABLE VANDA.

VANDA. Sepala subaequalia, libera, patentissima, basi saepe angustata v. fere unguiculata. Petala sepalis similia. Labellum basi columnae affixum, continuum, patens, basi saccatum v. obtuse calcaratum; lobi laterales ad latera sacci erecti, rotundati v. ad auriculas reducti, medius patens, latus v. oblongus; discus laevis v. varie callosus v. lamellatus. Columna brevis, crassa, exalata, apoda; clinandrium truncatum v. prominens. Anthera terminalis, opercularis, incumbens, convexa v. semiglobosa, bilocularis; pollinia 4, cerea, late ovata, per paria in loculis contigua v. concreta, inappendiculata, anthera dehiscente stipiti plano latiusculo affixa, glandula crassiuscula v. plana. Capsula oblonga, v. longiuscula, erecta v. patens, crassiuscula, erostris, costis prominentibus.

Herbae epiphyticae, caulibus foliatis non pseudobulbosis. Folia disticha, patentia, coriacea v. subcarnosa, apice saepe emarginata v. breviter biloba, plana v. teretia. Pedunculi laterales, racemo simplici laxo. Flores speciosi v. rarius mediocres, breviter pedicellati. Bracteae breves. Capsulae saepe longiuscule pedicellatae.

Species circa 40, Indiae orientalis et Archipelagi Malayani incolae, quarum una etiam in Australia tropica invenitur.

Vanda R. Br. in *Bot. Reg.*, VI (1820), t. 506. — Benth. f. *Gen. Plant.*, III, p. 578.

Vanda insignis. Folia rigida, ligulata, apice oblique abscissa et dentata, canaliculata. Racemi foliis breviores, 4-7 flori. Sepala patentia, unguiculata, obovato-spathulata. Petala similia. Labellum trilobo-subpanduratum, lobis lateralibus parvis auriculiformibus erectis rotundatis; intermedio late unguiculato dilatato reniformi-semilunato concavo integro, disco subtiliter rugoso basi bicarinato, calcari conico compresso recurvo. Columna brevissima.

Vanda insignis Blume in *Rumphia*, IV, p. 49, tt. 192, fig. 2, 197, fig. B. — Lindl. in Paxt. *Fl. Gard.*, II, pp. 19, 21, cum xyl. — Id., *Fol. Orch., Vanda*, p. 4. — *Bot. Mag.*, t. 5759. — Rchb. f. in *Gard. Chron.*, 1868, p. 1259. — Warn. *Sel. Orch.*, ser. I, t. 3. — Warn. & Will. *Orch. Album*, IV, t. 172. — Jenn. *Orch.*, t. 46. — Veitch *Man. Orch.*, pt. VII, p. 97.

Var. Schroederiana Rchb. f. in *Gard. Chron.*, 1883, pt. II, p. 392. — *The Garden*, XXV, p. 168, t. 429. — Veitch *Man. Orch.*, pt. VII, p. 98.

This handsome Vanda was originally discovered in the island of Timor, by Blume, who described and figured it in 1848. It was first introduced to cultivation in 1867, by Messrs James Veitch & Sons, of Chelsea, through their ill-fated collector Hutton, who after despatching his collection, including the Aërides which bears his name, returned to Java, where he died quite suddenly. It flowered for the first time in their establishment in October of the following year, on which occasion it was exhibited at a meeting of the Royal Horticultural Society, and was awarded a First-class Certificate. It continued very rare in gardens until 1882, when Messrs Veitch again imported a batch through their collector Curtis.

It is a distinct and handsome species, with flowers from two to two and a half inches in diameter, with white, twisted and grooved pedicels. The sepals and petals are bright tawny yellow, with dark brown oblong spots which are more or less confluent at the margins and apex. The lip is bright rose-purple,

with two small white rounded auricles and two small white keels between them. The very stout column is suffused with pale rose.

It is somewhat variable in colour, as a glance at the above cited figures will show, but the most marked deviation from the typical form is the variety *Schroederiana*, described by Reichenbach, in 1883. In this the sepals and petals are light yellow shaded with orange, and the lip cream-white with two orange lines in front of the spur. It appeared as a single plant in the consignment sent home by Curtis, and is now in the celebrated collection of Baron Schröder, of The Dell, near Windsor.

According to Curtis, *Vanda insignis* occurs along the coast and on low hills up to 1000 feet elevation, in Timor and the small adjacent island of Semao. It prefers low growing trees in rather open situations, where it gets but slight shade, but not on rocks or in dense shade. This traveller remarks that he happened to be in Timor during the flowering season, namely March and April, and saw thousands of flowers, though none approaching the variety *Schroederiana*. The existence of this unique variety was not suspected until it flowered in cultivation.

The accompanying figure was prepared from a plant in the collection of M. de la Devansaye, a French amateur of Orchids, President of the " Société d'horticulture d'Angers et du Maine et Loire. "

R. A. Rolfe.

CATTLEYA DOWIANA BATEM. var. STATTERIANA HORT.

Goossens J. Goffart chrom.

PL. CCCLVI.

CATTLEYA DOWIANA BATEM. var. STATTERIANA HORT.

CAPTAIN DOW'S CATTLEYA, Mr STATTER'S VARIETY.

CATTLEYA. Vide *Lindenia,* Engl. ed., vol. I, p. 7.

Cattleya Dowiana. Pseudobulbi validi, clavati, sulcati, monophylli. Folia lineari-oblonga, obtusa. Spatha obtusa, pedunculo subaequalis. Flores speciosissimi. Sepala lanceolata, acuta, plana, lutea. Petala elliptico-oblonga, obtusa, margine undulata, lutea. Labellum maximum, obscure trilobum, oblongum, emarginatum, crispum, atropurpureum, venis aureis pulcherrime ornatum. Columna clavata, labello triplo breviora.

Cattleya Dowiana BATEM. in *Gard. Chron.,* 1866, p. 922. — *Bot. Mag.,* t. 5618. — *Fl. des Serres,* t. 1709. — *Belg. Hort.,* XIX, p. 193, p. 13. — *Ill. Hort.,* XIV, t. 525. — *Revue Hort.,* 1869, p. 31, cum ic. — JENN. *Orch.,* t. 33. — DE PUYDT *Orch.,* p. 253, t. 7. — WARN. *Sel. Orch.,* ser. 2, t. 27.

Cattleya labiata var. Dowiana VEITCH *Man. Orch.,* pt. II, pp. 15, 16, cum xyl.

Var. aurea T. MOORE in WARN. & WILL. *Orch. Album,* II, t. 84. — *Reichenbachia,* ser. 1, I, p. 11, t. 5.

Cattleya aurea LINDEN in *Ill. Hort.,* n. s., XXX, p. 125, t. 493. — *Lindenia,* I, p. 61, t. 28.

Cattleya Dowiana was originally discovered in Costa Rica by WARSCEWICZ about the year 1850. Plants were sent to Messrs Low & C°, of Clapton, but being in bad condition they eventually died. The dried specimens were equally unfortunate, as the parcel containing them, sent by Messrs Low to Prof. REICHENBACH, failed to reach its destination. It was not re-discovered until 1865, when Mr ARCE, a native naturalist engaged in collecting butterflies and other natural history objects for Mr URE SKINNER, met with it. He sent plants to England, through Captain Dow, which were acquired by Messrs JAMES VEITCH & SONS, of Chelsea, one of which flowered for the first time in the autumn of 1865. It was described in the following year by Mr BATEMAN, who dedicated it to Captain Dow, in recognition of the assistance rendered by him to botanical collectors and to men of science generally. In Costa Rica it is said to be limited to a small area on the slopes of the great central mountain range facing the Pacific Ocean.

The variety *aurea* was discovered by GUSTAV WALLIS, in 1868, near Frontino, in the state of Antioquia, on the western Cordillera of New Granada, while collecting for M. LINDEN. It chiefly differs from the type in the yellow markings of the lip being more copious and irregularly distributed over the whole surface. It is also a freer grower. ROEZL records its habitat as near the river Cauca, at a considerable distance above its confluence with the Magdalena, a locality upwards of 600 miles distant from its Costa Rican habitat.

In this locality it is much more common than in Costa Rica, and also more variable, both in the colour of the sepals and petals, and in the amount of yellow on the lip. The variety *Statteriana*, here figured, is one of the most

handsome forms known. The sepals and petals are of a bright yellow shade, and the lip has far less of the purple colour than usual. The disc has a central band of purple lines, bordered on either side by a broad band of yellow, the undulate margin being edged with lilac-rose. It flowered in the collection of the late T. STATTER, Esq., of Stand Hall, Whitefield, near Manchester, and was awarded a First-class Certificate by the Royal Horticultural Society on September 19th, 1890. The accompanying plate was prepared from a specimen recently sent by the present T. STATTER, Esq., son and successor of the above named gentleman. It is a very handsome variety.

R. A. ROLFE.

COCHLIODA NÖTZLIANA

Concerning this species, figured and described in this work a year ago, we read in the *Gardeners' Chronicle* (November 12), the following :

" Of Orchids of recent introduction, *Cochlioda Nötzliana* is, perhaps, the most fascinating. We have now seen the flowers produced from fairly strong pseudobulbs, and there no longer remains a doubt of their beauty and usefulness. It is a satisfaction to know that the glowing descriptions respecting the merits of this pretty little Orchid have not been exaggerated. I think the spikes and flowers will never attain to the size of *Odontoglossum Pescatorei*, yet when the new pseudobulbs have been made equal in size to those naturally grown, no doubt the spikes will be much more branching and the flowers proportionally larger. The colour, which is a lovely shade of scarlet, considerably adds to the attractiveness of this species. Although rather slow to establish itself, it is generally pretty sure to grow, as very few of the newly imported pieces actually fail to start, and each year the new pseudobulbs get larger and larger; this fact, together with the hard, healthy appearance of the same, suggesting easy culture when really established. As this is a small-growing Orchid, I would recommend that it be not over-potted, rather using small earthenware pans or Teak-wood baskets, and suspending them near the roof-glass.

(H. A. BURBERRY, in the *Gardeners' Chronicle*, November 12, 1892).

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PL. CCCLVII.

CATTLEYA ALEXANDRAE L. LIND. et ROLFE var. TENEBROSA ROLFE.

THE PRINCESS OF WALES' CATTLEYA, DARK VARIETY.

CATTLEYA. Vide *Lindenia*, Engl. ed., vol. I, p. 7.

Cattleya Alexandrae. Pseudobulbi cylindrici, elongati, vaginis albidis tecti, vetusti sulcato-striati, 0.3-0.5 m. longi, 1.3-2 cm. lati, di-triphylli. Folia carnosa, rigida, elliptico-oblonga, obtusa, concava et suberecta v. planiora et patentia, 7-14 cm. longa, 4-5.5 cm. lata. Spathae lineari-oblongae, subobtusae, conduplicatae, carinatae, 7-9 cm. longae. Pedunculi 4-5.5 cm. longi, validi, apice circa 10-flori. Bracteae triangulari-ovatae, rigidae, patentes, 2-3 lin. longae. Sepala patentia, lineari-oblonga, subacuta, undulata, 5-6 cm. longa, 1-1.3 cm. lata. Petala similia, crispo-undulata. Labellum trilobum, 4.5 cm. longum, 3.5 cm. latum; lobis lateralibus semi-ovatis obtusis, 3 cm. longis, apice liberis, isthmo 1.3 cm. longo, 8 mm. lato, lobo intermedio subito dilatato flabellato-reniformi-retuso, minute crispo-undulato, 3-cm. lato, nervis paullo incrassatis. Columna clavata, arcuata, 3 cm. longa. Capsula fusiformi-oblonga, 9-angulata, 4-5 cm. longa, 2 cm. lata.

Cattleya Alexandrae L. LIND. & ROLFE in *Gard. Chron.*, 1892, pt. I, p. 522.

During the early part of last year, M. CLAES, one of the collectors of Messrs LINDEN, L'HORTICULTURE INTERNATIONALE, Parc Leopold, Brussels, then on an expedition in Northern Brazil, discovered a very remarkable Cattleya, whose habit at once pronounced it to be very distinct from every other known species. Though evidently belonging to that section of the genus which includes *C. Leopoldi*, it had very long peduncles, which carried up the racemes of flowers considerably higher than the leaves, in which respect it called to mind some species of Schomburgkia, yet in all other respects it was a genuine Cattleya. He sent home a series of excellent dried specimens, together with a batch of healthy living plants, from which the species was described, being dedicated to H. R. H. the PRINCESS OF WALES.

The collector reported it as a very remarkable Cattleya, bearing elongated peduncles, from 1 to 1 ¾ feet long, with a bouquet of ten to twelve flowers at the summit, not unlike in form to *C. Leopoldi*, but with the sepals and petals remarkably undulate, some of them with the colour of *Laelia elegans Turneri*, and others like those of *Laelia grandis tenebrosa*, with violet on the margins.

It is no secret that so wide a range of colour variation was received with a certain amount of incredulity, and the advent of its flowering for the first time in cultivation was awaited with no little curiosity. A number of the plants were distributed, and at length began to grow. One of the first peculiarities which manifested itself was the development of a number of axillary buds from the nodes of the old pseudobulbs, and at various heights. These produced roots in the ordinary way, and will furnish a means of propagating the species.

These growths are represented in the accompanying plates. There is reason, however, to suspect that they are not normal productions, but a result of the severe check the plants received at a period when they were about to commence their growth. Through their journey to Europe, growth was retarded beyond the normal season, and these axillary productions may well be due to a reaction. There is the more reason to suspect this, because the phenomenon is not met with in the pseudobulbs produced in their native habitat.

As the young normal growths became only partially matured, the scapes, in a few instances, began to push, from which it is evident that this Cattleya flowers on the young growths, and when properly established, it will prove to be an autumn bloomer. But the severe check which the plants had received was soon apparent, for instead of ten or twelve flowers, as in the dried specimens, only one to three matured themselves, the remaining buds turning yellow and shrivelling at an early stage. Those which expanded have quite confirmed the collector's indications of great variability, as no two have proved exactly alike, and the two extremes are illustrated in the two accompaying plates.

The variety tenebrosa is, as its name implies a very dark form, the segments being of a deep dusky brown, and the lip rose-purple, very much like that of *Cattleya Leopoldi*. It chiefly departs from the type in the intensity of the coloration of the sepals and petals.

R. A. Rolfe.

CATTLEYA ALEXANDRAE L. LIND. et ROLFE var. ELEGANS ROLFE

PL. CCCLVIII.

CATTLEYA ALEXANDRAE L. LIND. et ROLFE var. ELEGANS ROLFE.

THE PRINCESS OF WALES' CATTLEYA, ELEGANT VARIETY.

CATTLEYA. Vide *Lindenia,* Engl. ed., vol. I, p. 7.
Cattleya Alexandrae. Vide *supra,* p. 45.

A comparison of the accompanying plate with the preceding one will show how great is the range of variation on this remarkable Cattleya. The flowers of the variety *elegans* are larger than in the variety *tenebrosa*, and the colour of the sepals and petals closely resembles that of *Laelio-Cattleya* × *elegans Turneri;* the lip is also of a lighter shade than in the preceding, being bright rose-colour. It possesses one other marked character, though it is at present impossible to say if it is peculiar to it. In the other forms the side-lobes are but little longer than the column, which they enroll, and the apex is more or less acute. In the present form the side-lobes are distinctly longer than the column, and the tips are somewhat elongated, reflexed, and with an obtuse apex; the colour of the reflexed tips is also bright rose, closely resembling that of the front lobe. In other respects this handsome variety has all the characteristics of the species, except that the sepals and petals are rather less undulate than usual.

We may now return to the history of the species. A first flower expanded in the houses of L'HORTICULTURE INTERNATIONALE on October 9th last, and about a fortnight later one expanded at Kew. This had the sepals and petals of a light green shade with a number of dark brown blotches, like some of the forms of *C. guttata*. During the first week in November it flowered in the collection of SAINT HILL PEARSE, Esq., Brierly Hill, Staffordshire, as recorded by that gentleman's gardener, Mr. C. SIMS, in the *Gardeners' Chronicle* for December 17th last, p. 730. It is said to be a good form of the species, confirming the indications originally given of it, and to be a very useful flower for a buttonhole, being worn as such at the recent Birmingham Show. A plant was also exhibited by Messrs LINDEN at a meeting of the ORCHIDÉENNE, of Brussels, on November 13th last, and was unanimously awarded a First-class Diploma of Honour. This had the sepals and petals very much undulated and of a light coppery brown. The two varieties here figured flowered at a later date in the same collection. With such a considerable range of colour it is at present difficult to say which is the typical or more common form.

An examination of the pollen shows it to be a typical Cattleya, and we may now proceed to indicate its affinities.

There is a natural group of species consisting of *C. guttata*, *C. Leopoldi*, *C. amethystoglossa*, *C. porphyroglossa*, *C. granulosa*, *C. Dormaniana*, and of recent introductions *C. Victoria-Regina*, and *C. Batalinii*, to which *C. Alexandrae* is certainly allied, on account of the general agreement in the structure of the flower. It differs from everyone of these in the great length of the peduncles, a peculiarity which on the score of utility to the plant it seems difficult to account for. But, neglecting this character, it appears to be more closely allied to *C. Leopoldi* than to any of the others, because of the great similarity between the lips of the two species. There is also a certain similarity in the sepals and petals of the two species, though in *C. Alexandrae* they are much more undulate than in the other, a peculiarity which gives a particular charm to this recent addition to the genus.

After another season's growth it is probable that many of the plants will have become at least semi-established, and a good show of flowers may be anticipated. Too much could not be expected during the present season from a Cattleya which flowers from the young growths. Had it been one which flowered from the matured pseudobulbs of the preceding year, a very different result would have been witnessed.

There is one feature about this Cattleya to which, in conclusion, attention may be called, namely its probable utility for hybridisation purposes. So distinct a Cattleya, if crossed with the large and richly coloured forms of the labiata group, could scarcely fail to yield some remarkable results.

R. A. Rolfe.

Since the above was written, we have received from Th. Statter, Esq., of Whitefield, Manchester, a letter of which we may give the following extract:

"I know you will be anxious to hear my report of the flower, as it is one of your plants from your sale at Stevens. The spike has only two flowers, but is a very long spike. You cannot expect many flowers, being an imported piece and not a large one. My opinion, also the opinion of my grower Mr Johnson, is that it is a charming thing, a bijou for a gentleman's button-hole. The lip is broad and fine considering the size of the flower, rich dark mauve, with light edging; the labellum is complete and well shaped, a light pink, the sepals and petals rich coppery bronze. The petals turn in on the lower extremity, so that, whenever the plant flowers to perfection, it must be noted a fine introduction. I am a great lover of a flower rich in colour and form, suitable for a gentleman's button-hole."

L. L.

ODONTOGLOSSUM INSLEAYI LINDL. var. IMSCHOOTIANUM HORT.

PL. CCCLIX.

ODONTOGLOSSUM INSLEAYI LINDL. var. IMSCHOOTIANUM HORT.

Mr INSLEAY'S ODONTOGLOSSUM, VAN IMSCHOOT'S VARIETY.

ODONTOGLOSSUM. Vide *Lindenia*, Engl. ed., vol. I, p. 19.

Odontoglossum Insleayi. Pseudobulbi ovoidei, subcompressi, diphylli. Folia erecta, oblanceolato-oblonga, subacuta, apice recurva, coriacea. Scapi erecti, simplices, rigidi, foliis aequales v. longiores. Sepala lanceolato-oblonga, subacuta, subundulata, lateralia basi brevissime connata. Petala sepalis similia. Labellum panduratum, lobis lateralibus parvis basi sagittato-hastatis, intermedio reniformi-obovato, disci tuberculo apice depresso dilatato bilobo utrinque in medio unidentato lamellaque unica retrofracta aucto, columna brevi alis cirrhatis incurvis.

Odontoglossum Insleayi LINDL. *Fol. Orch.*, Odont., p. 4. — WARN. *Sel. Orch.*, ser. 2, t. 25. — BATEM. *Monogr. Odont.*, t. 4. — *Gartenflora*, XX, p. 129, t. 757. — ID., XXXIX, p. 474, fig. 79. — *Orchidophile*, 1885, p. 68, cum ic. — VEITCH *Man. Orch.*, pt. I, pp. 39, 40, cum xyl. — *Reichenbachia*, ser. 1, vol. I, p. 15, t. 7.

Oncidium Insleayi BARKER, ex LINDL. *Bot. Reg.*, XXVI (1840), *Misc.*, p. 19. — BATEM. *Orch. Mex. & Guat.*, t. 21. — *Flore des Serres*, t. 43. — PAXT. *Mag. Bot.*, VIII, p. 263, cum ic.

Var. leopardinum REGEL, in *Gartenflora*, XXV, p. 34, t. 856. — *Revue Hort. Belge*, 1888, p. 61, cum ic. — VEITCH *Man. Orch.*, pt. I, p. 39.

Var. pantherinum RCHB. F. in *Gard. Chron.*, 1873, p. 1302. — VEITCH *Man. Orch.*, pt. I, p. 39.

Var. splendens RCHB. F. in *Gard. Chron.*, 1868, p. 1038. — *The Garden*, XXV, p. 148, t. 428. — WARN. & WILL. *Orch. Album*, V, t. 215. — *Gard. Chron.*, 1886, I, pp. 304, 305, fig. 57. — VEITCH *Man. Orch.*, pt. I, p. 40.

Odontoglossum Insleayi was originally introduced by Mr BARKER, of Birmingham, about the year 1838, or 1839, through his collector Ross, who met with it in the neighbourhood of Oaxaca, in South Mexico. It flowered for the first time in Europe in Mr BARKER's collection, at Springfield, in the spring of 1840, and was named, after his gardener, *Oncidium Insleayi*. About twelve years later it was transferred to Odontoglossum by Dr LINDLEY.

As in the case of most other of the earlier introduced Odontoglossums, it soon disappeared from cultivation, not being able to endure the stifling heat of the stoves in which all Orchids were at that time confined. Viewed in the light of our knowledge at the present day, it is marvellous how persistently most cultivators ignored the fact that plants from an altitude of five to six thousand feet above sea-level were natives of an essentially temperate climate, and must be treated accordingly. Probably they were unaware of the facts, and this plea may at least be urged in extenuation.

For about twenty years the species disappeared from cultivation, but in 1863 it again appeared, and was figured by Mr BATEMAN in his splendid monograph of the genus. With the advent of a rational system of cool treatment, the plant was found to grow with the greatest ease, and it has been represented in our collections ever since.

It is one of a natural group of three species, found in the mountains of

Central America. First comes the present species, inhabiting the mountainous region in the neighbourhood of Oaxaca, in South Mexico. Then follows *O. grande*, in the southern part of the state of Guatemala; and lastly comes *O. Schlieperianum*, from the mountains of Costa-Rica, still further south.

O. Insleayi is a rather variable species as regards the colour of the flowers. The variety *splendens*, introduced by Messrs Hugh Low & C°, of Clapton, and named in 1868, has flowers rather larger than the type, the sepals and petals ochreous yellow, and the lip canary yellow with a broad marginal band of red blotches. Var. *pantherinum* appeared in 1873, and has chestnut brown sepals and petals with a paler margin, and the whole of the lip variegated with red and yellow. Var. *leopardinum* has chestnut brown sepals and petals barred and margined with yellow, and the lip bright yellow with a marginal zone of deep red blotches. The variety *aureum* chiefly differs in having lost nearly all traces of the chestnut markings from the flower. It appeared in the collection of Alfred Wilson, Esq., of Westbrook, Sheffield, in the autumn of 1889. The variety *Imschootianum*, here figured, is very similar to the last, and may prove not to differ materially from it. It appeared in the collection of M. A. Van Imschoot, of Gand, and was awarded a First-class Diploma of Honour at a meeting of the Orchidéenne of Brussels on October 9th last. Lindley's variety *macranthum* must be excluded, as it is synonymous with *O. Schlieperianum*.

The usual time of flowering of this handsome species and its varieties is late summer and early autumn.

R. A. Rolfe.

CYPRIPEDIUM × LEONAE L. LIND.

PL. CCCLX.

CYPRIPEDIUM × LEONAE L. LIND.

Mrs H. S. LEON'S CYPRIPEDIUM.

CYPRIPEDIUM. Vide *Lindenia*, Engl. ed., vol. I, p. 31.
Cypripedium × *Leonae*. Novum hybridum inter *C. insigne var. Chantini* et *C. callosum* artificiose productum.

Hybrid Orchids, and especially those obtained in the genus Cypripedium, attract more and more the attention of amateurs. At the present time their number is very considerable, and is being augmented with ever-increasing rapidity. In the *Catalogue* published by M. Ernest Bergman 326 hybrids are enumerated. Their diversity, on the other hand, permits one to make a selection, and to discard those which are not really meritorious.

The new hybrid which we figure on the opposite page is worthy to be considered as one of the best forms produced by hybridisation, and the cross has unquestionably yielded a remarkable offspring. It was obtained during recent years by the Society L'Horticulture Internationale, of Brussels, and flowered for the first time in the month of October, 1892. It was derived from *C. insigne Chantini*, fertilised with the pollen of a very fine variety of *C. callosum*.

The product of a cross of this kind could not fail to possess a highly developed dorsal sepal. This organ is indeed of exceptional size and shape, nearly orbicular, with the apex lightly apiculate. As to colour, it is quite intermediate between that of the two parent species. It bears on its lower half an area of dark green, which becomes brighter above, and then a series of parallel red lines spotted with red-brown points, leaving round the margin a broad band of pure white. The petals and lip in form resemble very closely *C. callosum*, but in colour they are about intermediate between the two parent-species. The petals are of a bright red, without spots or warts, and with a pale green border at the extremities.

Altogether the new hybrid is very remarkable. The dorsal sepal from the very first absorbs attention, and its bright and gay colour, and remarkable size, produce an impression which is not often the case elsewhere.

It is absolutely an unique plant, the other seedlings having been destroyed by an accident while they were very small; very fortunately a single plant was saved. It flowered four and a half years from the time the seed was sown.

We have the pleasure of dedicating this hybrid to Mrs Leon, wife of H. S. Leon, Esq., M. P., of Bletchley Park, Bletchley, an amateur of Orchids who possesses a very choice collection.

It is somewhat remarkable how small a number of hybrids have hitherto been procured from *C. callosum*. Certain species, such as *C. Spicerianum*, *C. villosum* and *C. insigne*, not to speak of the Selenipediums, have yielded a very numerous progeny, but *C. callosum* has only hitherto figured in three or four crosses at the most. We think, however, that in the future it will play an important part in the work of hybridisation. It is one of the most robust and rapidly growing species, and therefore we are not at all surprised to find that *C.* × *Leonae* also possesses the same character to an eminent degree; otherwise it would singularly disgrace its origin.

L. L.

ORCHIDS AND MANURE

The recent issues of the *Journal des Orchidées* contain a series of interesting articles concerning that cultural point of great importance, whether certain special manures are beneficial to Orchids. MM. Count de Moran and Lucien Linden, editor, pronounce themselves most decidedly against manuring, on the ground that whenever this treatment causes no injury to the plants (and the reverse is most frequently the case, because the active growth caused during the first two or three years by the stimulating food is followed by an excessive weakness, and by a rapid and inevitable death), the manure is yet unnecessary, as Orchids, in our gardens, prove as vigorous and healthy as we may expect to find them in a natural state.

The conclusion which the above-named writers arrive at is therefore the following : — that manures, of whatever kind, must be, either dangerous, or at least useless; and therefore in both cases undesirable.

M. Lucien Linden also states that no manure has ever been used in the treatment of Orchids at the establishment of L'Horticulture Internationale, and he requests all amateurs who may visit that famous nursery to take some pieces of the compost in the houses, as specimens which they can place under analysis, in order to ascertain that the compost used for Orchids cultivated at the establishment contains no trace of manure.

M. G.

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CYPRIPEDIUM × MEMORIA MOENSII L. LIND.

A. Goossens pinx. *J. Goffart chrom.*

PL. CCCLXI.

CYPRIPEDIUM × MEMORIA MOENSII L. LIND.

Mr J. MOENS' CYPRIPEDIUM.

CYPRIPEDIUM. Vide *Lindenia,* Engl. ed., vol. I, p. 13.

Cypripedium × *memoria Moensii.* Novum hybridum a defuncto J. MOENS productum, et ejusdem memoriae dicatum.

A *purple Leeanum*. Such is the summary which one might give in order to convey an idea of the particular character and beauty of this new hybrid, and which would enable one to picture it to themselves sufficiently well in the imagination.

The group of hybrids derived from *C. Spicerianum* is at the present time one of the largest which exists in the genus. Their beauty has encouraged a large number of hybridists to follow this particular line of experiment, and quite recently many forms have appeared which are remarkable for the size of the dorsal sepal, for their beauty of form, their pure white colour spotted with green, and their clear or dark violet, or even rose, tint.

C. × *memoria Moensii* marks the extreme of these successive improvements, and we think it will be scarcely possible to obtain more splendid results. The dorsal sepal is of the form so characteristic of the hybrids of this section, broadly orbicular, with the margins slightly reflexed at the base, while the apex is well expanded, but it is distinguished from all of them by the splendour of its charming purple colour, hitherto unknown among Cypripediums, and quite unique. There remains at the extreme apex a light trace of white.

The petals are long, well expanded, slightly inclined inwards at their extremities, and very broad. As is often the case, they are divided throughout their length by a median line of dark brown; the upper half of each is of a bright shining brown, the lower one of a lighter colour.

The staminode, whose colour is violet-rose with a bright violet border, is much like that of *C. Spicerianum*. Lastly, the point of insertion of the petals and the upper sepal forms a very narrow area of clear green, covered with very small black spots. The bright brown lip is very large, and nearly square.

We have dedicated this magnificent hybrid to the lamented J. MOENS, of Lede, in whose collection it made its appearance, unfortunately when its raiser was no longer able to enjoy the contemplation of it. This distinguished amateur, whose loss for some months we have had to mourn, was an excellent connoisseur, as might readily be inferred from the beautiful plants from his collection which

he exhibited regularly at the meetings of the ORCHIDÉENNE, and the hybrids which he so judiciously produced, and of which the present is the best. His Orchids were the objects of his constant preoccupation, and when the tidings of his death so unexpectedly arrived, the same evening as the grand Exhibition in the month of May, he had sent some of his most beautiful plants in flower, notably certain Cypripediums, several Cattleyas, Odontoglossums, etc., to which a special prize (Object of Art) was awarded by the jury.

The name of M. J. MOENS is already commemorated by the superb variety of *Cypripedium Argus*, which is dedicated to him. It will not be less brilliantly borne by the new hybrid which we figure to-day, and which marks a decisive stage in the history of Orchid hybridisation.

L. L.

CYPRIPEDIUM LUCIENIANUM HORT.

PL. CCCLXII.

CYPRIPEDIUM × LUCIENIANUM HORT.

M. LUCIEN LINDEN'S CYPRIPEDIUM.

CYPRIPEDIUM. Vide *Lindenia,* Engl. ed., vol. I, p. 31.

Cypripedium × *Lucienianum*. Hybridum novum e *C. villoso* et *C.* × *bellatulo* artificiosa fecundatione productum.

If we carry out among the numerous artificial hybrids at present existing in the family of Orchids the selection not unreasonably demanded by M. Ernest Bergman, in his interesting little volume, recently published, entitled *Les Orchidées de semis;* if we sacrifice without pity mediocre forms, and only preserve the most characteristic types, and those possessing superior merit, there can be no doubt that *Cypripedium* × *Lucienianum* must be included among the number of these selected forms, because of the beauty of its dorsal sepal. This segment alone constitutes a remarkable improvement with reference to its two parents, which possess neither the ampleness of form, nor the richness and variety of colour, which consists of an exquisite mixture of clear green, brown, red and violet. In the genus Cypripedium and in the hybrids already produced artificially, few certainly exist which from this point of view can be compared with the one which we figure to-day.

The new hybrid we here figure was at first thought to be derived from *C. villosum* crossed with a superior form of *C. oenanthum superbum*, but its raiser states that the second parent was *C. bellatulum*. Such being the case, a special interest arises from the fact, that there exists till now no other hybrid issued from *C. bellatulum*, a superb species which, however, seemed to deserve every attention of the hybridists, on account of its beautiful form and colour. A single defect has been thought by certain persons to mar such great qualities, namely the shortness of its peduncles; and the reader can ascertain, by inspecting our plate, that the result of the hybridisation has been to successfully redress that fault.

The influence of *C. villosum* is distinctly apparent in the lower segments of the flower, the petals, lip, and also the lower sepal, but the dorsal sepal is very distinct, and more nearly resembles that of the other species.

Cypripedium × *Lucienianum* is dedicated to M. Lucien Linden, Managing Director of the Horticulture Internationale.

G. R.

CATTLEYA GLORIOSA AND CATTLEYA MAJESTICA

These are varieties of *C. labiata* coming from localities sufficiently distant from the places where our ordinary forms of *Cattleya Warocqueana* have been collected, that is to say, *C. labiata* of the famous " Swainson's hunting ground. "

C. gloriosa is distinguished by its much clearer leaves and almost yellow pseudobulbs, and of its flowers the sepals and petals are white or whitish, and a lip speckled with a purple blotch of greater or less size. I saw it in flower at the end of October last, in the superb collection of M. Treyeran, of Bordeaux, an admirable specimen which bore ten flowers. That plant came out of our sale, of the 30 th. October 1891, at Messrs Protheroe and Morris's Rooms. I have received flowers of the same variety from several amateurs, notably from M. Cahuzac, likewise of Bordeaux. We have had some beautiful specimens of it in flower at L'Horticulture Internationale, where they have been admired by numerous visitors ; and lastly a magnificent variety flowered with Dr Capart, of Brussels, in November last. *Cattleya Gloriosa* corresponds entirely with the description which *The Gardening World* of the 12 th. of November last (p. 169) gives of the *C. labiata Sanderae*. They appear to me to be synonymous.

C. majestica has reddish and very long leaves and pseudobulbs, " titanic leaves and titanic pseudobulbs. " The flowers are large and highly coloured. M. G. Warocqué exhibited some beautiful specimens of it at the October meeting of L'Orchidéenne at Brussels, where they caused a sensation. *C. majestica* is no longer an unknown plant in England. *The Gardening World* of the 17 th. December last (p. 248) gives a description of it, and says that it has flowered with Messrs de Rothschild, at Gunnersbury Park, and proves to be a variety of particular merit. Finally an example of *C. l. majestica* in flower was put up at our sale of the 30 th. October 1891, at Messrs Protheroe and Morris's Rooms, and was sold for 11 guineas (see *Gardening World*, November 7 th. 1891, p. 152). — Behold again what the *Gardeners' Chronicle* of November the 7 th., 1891, p. 554, says : " The plants of a supposed new form of *C. labiata*, named *majestica*, looked good, and the best pieces fetched from five to eleven guineas. "

L. L.

COELOGYNE HOOKERIANA LINDL.

PL. CCCLXIII.

COELOGYNE HOOKERIANA LINDL.

SIR JOSEPH HOOKER'S COELOGYNE.

COELOGYNE. Sepala subaequalia, erecta v. patentia, libera v. leviter cohaerentia. Petala sepalis conformia v. saepe angustiora nunc angustissima. Labellum ad basin columnae sessile, erectum, basi concavum et interdum breviter saccatum, lobis lateralibus nunc amplis erectis columnam amplectentibus v. involventibus, nunc brevibus v. fere obsoletis, lobo medio saepe expanso patenteque indiviso. Columna erecta, longiuscula, superne v. apice saepe bialata, apoda; clinandrium obliquum, saepe membranaceo-dilatatum, integrum dentatum v. antice biangulatum. Anthera intra marginem clinandrii affixa, subopercularis, incumbens, bilocularis, loculis basi v. fere undique confluentibus; pollinia 4, cerea, obovata v. oblonga, compressa, per paria in loculis segregata, apice appendice granulosa polymorpha connexa. Capsula saepius oblonga, costis acutissimis et plus minus in alas expansis.

Herbae epiphyticae, caespitosae v. longe repentes. Pseudobulbi secus rhizoma saepius crassi insigniter angulato-costati v. subteretes, apice saepissime diphylli. Scapi v. pedunculi alii inter folia terminales basi paucivaginati, alii sub anthesi ad basin pseudobulbi longius imbricato-vaginati, foliis sub pedunculo tardius evolutis, rarius ad apicem rhizomatis in caulem paucifoliatum abeuntes. Flores majusculi v. speciosi in pedunculo v. scapi solitarii, v. plures laxe racemosi. Bracteae saepe coriaceae v. subpetaloideae, deciduae v. persistentes. Labelli superficies saepe laminis v. lineis prominentibus dentatis ciliatisve cristata.

Species ad 50, per Indiam orientalem et Archipelagum Malayanum late dispersae, una usque ad Chinam australem extensa.

Coelogyne LINDL. *Collect. Bot.*, sub t. 33. — BENTH. et HOOK. F. *Gen. Plant.*, III, p. 518.

Pleione DON. *Prodr. Fl. Nepal.*, p. 36.

Coelogyne Hookeriana. Pseudobulbi nudi, ovoidei, laeves. Folia floribus synanthia scapum superantia v. longiora, elliptico-lanceolata, acuminata, plicata. Bracteae spathaceœ ovarium aequantes. Sepala et petala consimilia, patentia oblongo-lanceolata, acuta. Labellum convolutum, cylindraceum, antice explanatum, retusum, margine erosum, disco lamellis 7 crinitis ornato. Columna gracilis, clinandrio cuneiformi angulis recurvis.

Coelogyne Hookeriana LINDL. *Fol. Orch. Coelog.*, p. 14. — *Bot. Mag.*, t. 6388. — HOOK. F. *Fl. Brit. Ind.*, V, p. 842. — VEITCH *Man. Orch.*, VI, p. 54.

Var. brachyglossa RCHB. F. in *Gard. Chron.*, 1887, I, p. 833. — VEITCH *Man. Orch.*, VI, p. 55.

This handsome species was discovered about the year 1849 or 1850 by Dr (now Sir JOSEPH) HOOKER in the Sikkim Himalayas, between 7,000 to 10,000 feet elevation. It was originally described as a pretty little plant, about four inches high, with almost the habit of *Cypripedium guttatum*. It is said to be common on mossy banks, and flowers in spring. Its discoverer states that there are certainly two forms in the Sikkim Mountains, or the lip is very variable. The typical form grows at the lower elevations. The other, afterwards called variety *brachyglossa*, by REICHENBACH, has the lip shorter and more open from the base, and more rhomboid when spread open. It grows at the higher elevations, from 9,000 to 10,000 feet above sea-level. The typical form is figured at t. 6388 of the *Botanical Magazine*, and was introduced to cultivation many years ago. The variety is said to have been introduced by

Mr Elwes, in 1877, and was described from materials from the rich collection of Sir Trevor Lawrence, Bart., at Burford, Dorking.

This charming little species is rare in cultivation, and is said to require rather cooler treatment than its allies, *C. lagenaria*, *maculata*, and *praecox*. Like *C. humilis*, also from a high alpine region, it should be placed at the coolest end of the house, or in a cooler compartment.

Few Orchids are more charming than these delightful little plants during the autumn and winter months, though their flowers are of rather short duration. They are often familiarly known in gardens as "*Indian Crocuses.*"

R. A. Rolfe.

MORMODES IGNEUM LINDL. var. MACULATUM ROLFE

A. Goossens pinx. *P. De Pannemaeker chrom.*

PL. CCCLXIV.

MORMODES IGNEUM LINDL. var. MACULATUM ROLFE.

THE FIERY-RED MORMODES, SPOTTED VARIETY.

MORMODES. Vide *Lindenia,* Engl. ed., vol. I, p. 23.

Mormodes igneum. Pseudobulbi conico-fusiformes, 9-11 cm. longi. Folia lanceolata, acuta, plicata, 14-23 cm. longa, 2-3.5 cm. lata. Scapi erecti, foliis breviores, basi vaginis spathaceis tecti; racemi 9-12 flori. Bracteae oblongae, obtusae, 0.8-1 cm. longae. Sepala reflexa, oblongo-lanceolata, acuminata, 2.5 cm. longa. Petala erecta, sepalis similia, paullo latiora. Labellum unguiculatum, carnosum, latissime obovatum, apiculatum, margine revolutum. Columna 1.5 cm. longa.

Mormodes igneum LINDL. in *Paxt. Fl. Gard.*, III (1852-3), p. 97, t. 93, fig. A. — LEM. *Jard. Fleur.*, IV, t. 330. — RCHB. F. in *Walp. Ann.*, VI, p. 579. — DARWIN *Fertilisation of Orchids,* ed. 2, pp. 208-219, cum. xyl.

Var. maculatum. Sepala et petala multobrunneo-maculata.

Var. maculatum ROLFE *supra*.

Mormodes igneum, one of the most distinct and handsome species of the genus, was described upwards of forty years ago, by Dr LINDLEY. " This fine plant, " he remarks, in PAXTON's *Flower Garden*, vol. III, p. 67, " and several others of the same genus, has been produced from the *rejectamenta* of one of Mr WARSCEWICZ's sales. In January last (1852) we received from Mr. RUCKER five sorts of Mormodes, all derived from the same source, all in flower, and all new. " *M. igneum*, which was one of them, " was conspicuous for the great size of its parts, and for its intense colouring. A stiff stalk, about a foot high, bore a dozen large fleshy flowers, of which the sepals and petals were alike chocolate coloured, and the lip a rich fiery orange-brown. There was no streaking or spotting in any part of the surface. " The native country was somewhat vaguely given as Central America. A coloured plate was given of the raceme, which bears out LINDLEY's statement of its brilliant colour.

DARWIN wrote a long account of the structure and fertilisation of its flowers, and expresses his cordial thanks to Mr RUCKER, of West Hill, Wandsworth, for having lent him a plant of this Mormodes, with two fine spikes, bearing an abundance of flowers. We have no evidence of its having been cultivated in any other collection, and it ultimately disappeared, since which time nothing further seems to have been heard of it.

Its non-appearance might excite some surprise, were it a member of some popular garden genus, but when we remember that the much-coveted *Cattleya labiata* eluded the search of collectors for upwards of half a century, and that the habitat of the very distinct *Cattleya iricolor* still remains a profound mystery, we need not be surprised that a Mormodes, although one of the handsomest

and most distinct in the genus, should not have reappeared — at least not in its original form.

The plant we now figure appears at the first glance so distinct from LINDLEY's plant that a comparison of the figures alone might lead one to question the propriety of considering it a variety of the same species, but the only tangible difference it possesses is the rich spotting of the sepals and petals, and a little difference in the shade of the ground colour. The shape and size of the bracts and flowers are almost identical in the two, and, as the spots vanish in drying, it is almost impossible to distinguish the two in the dried state. It therefore seems probable that this Mormodes, like several others, will be found to be very variable in colour when better known. I have therefore very little hesitation in regarding it as a variety of *M. igneum* LINDL.

It was introduced from Peru by Messrs LINDEN, L'HORTICULTURE INTERNATIONALE, Brussels, with whom it flowered in November last. The sepals and petals are dusky yellowish brown, richly spotted all over with largish deep purple-brown or almost liver-coloured spots. The lip is somewhat similar, but the ground colour reddish-buff, inclining to copper-colour. The column is spotted with dark purple on a light ground. It is a handsome variety.

DARWIN's observations on the fertilisation of the flowers of this species are very interesting. He showed that when a largish insect alighted on the labellum, perched, as it is, on the top of the twisted column, and reached over, it would liberate the sensitive and highly elastic pollinia, which would inevitably be precipitated on the head of the insect, and attached there by the viscid gland. In its flight, however, it curls up like a hoop, with the anther case serving to prevent the pollinia from being permanently glued to the gland. As the moisture dries up, the hoop straightens itself and the anther-case falls off. This occupies from ten to fifteen minutes, after which the pollinia would not fail to be left on the stigma of any flower subsequently visited.

R. A. ROLFE.

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BATEMANNIA COLLEYI LINDL.

PL. CCCLXV.

BATEMANNIA COLLEYI LINDL.

Mr. COLLEY'S BATEMANNIA.

BATEMANNIA. Sepala aequilonga, posticum liberum, erectum, concavum, lateralia pedi longo columnae adnata, ad apicem pedis patentia, postico angustiora. Petala sepalo postico subsimilia et plana, basi pedi columnae latiuscule adnata. Labellum ad apicem pedis columnae articulatum, basi incumbens, concavum; lobi laterales erecti, columnam amplectentes, medius patens, brevis, indivisus, crista ad basin lobi parva. Columna longiuscula, crassa, antice concava, exalata, basi in pedem producta: clinandrium obliquum, margine elevato membranaceo denticulato. Anthera intra marginem clinandrii affixa, opercularis, incumbens, convexa, bilocularis, membrana lata appendiculata; pollinia 2, cerea, anguste oblonga, sulcata v. biloba, inappendiculata, anthera dehiscente glandulae (v. stipiti) obovatae v. cuneiformi planae affixa.

Herba epiphytica, caulibus abbreviatis uni-trifoliatis, mox in pseudobulbum carnosum incrassatis. Folia ampla, membranaceo-coriacea, plicato-venosa, basi breviter contracta. Scapi ad basin pseudobulborum recurvi v. penduli, basi vaginis subfoliaceis stipati, simplices. Flores majusculi, laxe racemosi, pedicellati. Bracteae ovatae, pedicello breviores.

Species unica, guianensis.

Batemannia LINDL., *Bot. Reg.*, XX (1835), t. 1714. — BENTH. & HOOK. F. *Gen. Plant.*, III, p. 346.

Batemannia Colleyi. Pseudobulbi ovato-oblongi, subtetragoni, 4-5 cm. longi. Folia oblongo-lanceolata, acuta v. breviter acuminata, plicata, basi angustata. Racemus radicalis, pendulus, 5-10 cm. longus, laxiflorus. Bracteae rhombeae, striatae, conduplicatae, 1.1-1.5 cm. longae. Flores pedicellati. Sepalum posticum erectum, oblongum, obtusum, 2-3 cm. longum; lateralia patentia, lineari-spathulata, basi angustiora, 2.5-3.5 cm. longa. Petala subconniventia, oblonga, obtusa, sepalo postico subaequalia. Labellum oblongum, lobis lateralibus rotundatis, intermedio subcuneato. Columna elongata, clavata.

Batemannia Colleyi LINDL. *Bot. Reg.*, XX, t. 1835. — *Bot. Mag.*, t. 3818. — WARN. & WILL. *Orch. Album*, VIII, t. 341.

Batemannia Colleyi was originally sent from Demerara to JAMES BATEMAN, Esq., of Knypersley, by his collector, Mr. COLLEY. It flowered in 1835, when it was figured and described by Dr. LINDLEY in the *Botanical Register*. " We name this genus, " he remarks, " in compliment to JAMES BATEMAN, Esq., of Knypersley, an ardent collector and successful cultivator of Orchideous epiphytes. Mr. COLLEY, after whom the species is called, was Mr. BATEMAN'S collector in Demerara. " He had then just returned from a successful mission, with a considerable number of epiphytes which were new to cultivation.

LINDLEY spoke of it as a handsome species, and quite different from all the genera previously described. It is somewhat curious that no other plant possessing a similar structure has since appeared, and so far as our knowledge at present extends the genus is monotypic. REICHENBACH, it is true, described several species under the name of *Batemannia*, but they have little in common with our present plant, as a comparison with the annexed plate would abundantly

prove. The fact is REICHENBACH's Batemannias belong to LINDLEY's genus *Huntleya*, which has since been reduced as a section of *Zygopetalum*.

It is difficult to account for the confusion, but the same remarks would apply to the case of *Laelia* and *Bletia*, which this author persistently regarded as forming one common genus, in spite of their numerous important differences.

The plant now under consideration has distinct ovoid-oblong pseudobulbs, which bear one or two, or even three, oblong-lanceolate leaves, with plicate nerves, and lax drooping racemes of flowers, whose sepals and petals are generally of a reddish-brown colour with green tips, and the lip yellowish-white. Sometimes the sepals and petals are considerably paler. The dorsal sepal and petals are somewhat connivent, the latter united to the foot of the column, but the linear-spathulate lateral sepals are spreading from their point of attachment.

As regards culture, it is probable that it would succeed well under the same treatment as is given to *Paphinia cristata*, from the same country. It should therefore be planted in well-drained pans of good fibrous peat and sphagnum moss, and suspended near the glass in the East Indian house. During the growing season an abundance of water should be given.

R. A. ROLFE.

PHALAENOPSIS LUEDDEMANNIANA RCHB. F.

P. De Pannemaeker chrom.

PL. CCCLXVI.

PHALAENOPSIS LUEDDEMANNIANA RCHB. F.

M. LUDDEMANN'S PHALAENOPSIS.

PHALAENOPSIS. Vide *Lindenia,* Engl. ed., vol. I, p. 21.

Phalaenopsis Lueddemanniana. Folia elliptico-oblonga, subobtusa. Scapi descendentes, laxiflori. Flores 4-5 cm. diametri. Sepala elliptico-oblonga, subobtusa v. apiculata, lateralia subobliqua, paullo latiora. Petala sepalis similia v. paullo parviora. Labellum breviter unguiculatum, trilobum, lobis lateralibus erectis oblongis bidentatis, intermedio obovato-oblongo subobtuso carinato disco piloso. Columna clavata.

Phalaenopsis Lueddemanniana RCHB. F. in *Bot. Zeit.,* XXII (1865), p. 146. — ID. in *Gard. Chron.,* 1863, p. 410. — *Bot. Mag.,* t. 5523. — *Fl. des Serres,* t. 1636. — *Revue Hort.,* 1872, p. 390, cum ic. — *Flor. & Pomol.,* 1865, p. 257. — *Lindenia,* II, p. 95, t. 94.

Var. delicata RCHB. F. in *Gard. Chron.,* 1865, p. 434.

Var. hieroglyphica RCHB. F. in *Gard. Chron.,* 1877, pt. II, p. 586.

Var. ochracea RCHB. F. in *Gard. Chron.,* 1865, p. 534. — *Revue Hort.,* 1872, pp. 390, 391, fig. a.

Var. pulchra RCHB. F. in *Gard. Chron.,* 1875, pt. II, p. 36.

This charming Phalaenopsis is a native of the Philippine Islands, and is said to be abundant in the neighbourhood of Manila. It was introduced by Messrs HUGH LOW & C°, of Clapton, in 1864, who, not at first distinguishing the species from *P. rosea*, sold some of the plants under that name. As soon as flowers were produced, the mistake was at once apparent. M. LÜDDEMANN, of Paris, was the first European cultivator who flowered the plant, and to him the species was dedicated by Prof. REICHENBACH.

In the spring of 1865 it flowered almost simultaneously in several collections, and at a meeting of the Royal Horticultural Society, held on May 2 nd. of that year, it was shown by five different exhibitors, Messrs HUGH LOW & C°, J. DAY, Esq., of Tottenham, S. RÜCKER, Esq., of Wandsworth, R. BARNETT, Esq., of Blackheath Park, and Dr. PATTISON, of St. John's Wood. Immediately afterwards it also flowered in the collection of the late Mr. WENTWORTH BULLER.

From the outset it has been recognised as a very variable species in the colour of its flowers, and several forms have received distinctive names. The general ground colour is a light yellowish white, variously suffused with rose and barred with amethyst-purple. In the typical form the flowers are transversely barred with amethyst-purple on a light ground. The variety *delicata* has clustered cinnamon spots on the upper part of the segments and the amethyst confined to the very base. The one called *hieroglyphica* has the sepals and petals cream-white covered with small cinnamon spots and markings. The variety *ochracea* is characterised by having the stripes on the sepals and petals light ochre-yellow. Lastly comes the beautiful variety *pulchra*, which has the upper part of the sepals

and petals port-wine colour, and the interior part, as well as the lip and column amethyst-purple, the transverse bars being nearly obliterated. All the varieties, when well grown, are very charming.

Phalaenopsis Lueddemanniana has been utilised by the hybridist on at least one occasion, as it was the pollen-parent of the strikingly handsome form known as *Phalaenopsis* × *John Seden*, the seed-bearer being *P. amabilis* Blume (not of Lindl.), often known in gardens as *P. grandiflora* Lindl. It is highly probable that other forms may soon appear in whose parentage this species has participated, as so decided a success is sure to be followed by other experiments.

R. A. Rolfe.

PRACTICAL NOTES.

Orchid baskets should be made of wood collected during the winter, because it is necessary that the wood should be well matured. Young wood is subject to mould and to the attacks of insects.

The wood selected should be rather hard, and not too thin, so as not be too quickly penetrated and decayed by the moisture. We generally select maple, elm or oak. Pieces of vine-stock serve also to give the baskets a rustic aspect, as is much sought after by amateurs. But care should be taken to clean them from insects which may lodge there.

For plain baskets without ornament, pitch-pine is the wood most to be recommended. We previously steep them in linseed oil, after which they are not so easily permeated by moisture, and consequently last much longer.

As the bars are much more easily cleaned, we prefer this kind of basket to the others, although they are less elegant. Cleanliness is the principal object in this matter. There is moreover an essential interest in not being obliged to change them too often, which can scarcely be done without more or less injury to the roots.

It is advisable to attach the young stems or shoots of Orchids to a support. This precaution is especially useful for the long shoots of Cattleyas, Laelias, etc., when near the side of the plant, and liable to be broken, for the bulbs or shoots of those species which possess a climbing rhizome, as *Oncidium insculptum*, *O. zebrinum*, etc., various species of Zygopetalum, Catasetum, Cycnoches, etc., and lastly for plants recently imported and not yet well-rooted.

For tying the growths or bulbs to their support, raffia is preferable to all other material. Anything which is liable to injure the tender parts of the plant should be carefully avoided. The raffia should first be wound round the

(*To be continued on p.* 18.)

LAELIO-CATTLEYA × AMOENA var. DELICATA BLEU

PL. CCCLXVII.

LAELIO-CATTLEYA × AMOENA var. DELICATA BLEU.

THE CHARMING LAELIO-CATTLEYA, DELICATE VARIETY.

Laelio-Cattleya ×. Vide *Lindenia,* Engl. ed., vol. II, p. 25.

Laelia Cattleya × *amoena.* Hybrida artificiosa fecundatione *Cattleyae Lodigesii* cum polline *Laeliae Perrinii* in caldariis A. BLEU producta.

Var. delicata. Varietas propter pallidiorem colorem insignis, ex eadem capsula nata.

Laelio-Cattleya × *amoena delicata* BLEU. *Journ. des Orchidées,* III, p. 281.

At a meeting of the ORCHIDÉENNE of Brussels held on the 13 th. of November last, M. ALFRED BLEU, the skilful Parisian hybridist, of whose success the readers of the *Lindenia* are already aware, exhibited one of his hybrids under the name of *Laelio-Cattleya* × *amoena delicata*. This beautiful plant excited very great interest, and was awarded a First-class Diploma of Honour by the Jury.

At a subsequent date the annexed figure was prepared, and we now give the information obligingly furnished to us for the purpose.

" *Laelio-Cattleya* × *amoena*, which owes its origin to the crossing of *Cattleya Loddigesii* with the pollen of *Laelia Perrinii*, is a form intermediate between the two species, and very graceful and distinct.

" The hybrids obtained in various genera, now becoming numerous, have clearly demonstrated the general tendency they possess to unite the characters of the parent species. *Laelio-Cattleya* × *amoena* follows the general rule, and a sight of it is sufficient to at once reveal its descent.

" The flowering period of this hybrid is October and November, and it remains open not less than fifteen days. It is therefore a valuable addition to the rather limited number of kinds which flower at this period.

" The following is the technical description : —

" Pseudobulbs elongate, compressed, club-shaped, 7 to 8 inches long, one-leaved or very rarely two-leaved. Leaves oval-lanceolate, 8 to 10 inches long. Flowers 4 $^{1}/_{2}$-5 $^{1}/_{2}$ inches broad, the divisions of the perianth having the rose colour of *Laelia Perrinii*, except the central part, which has nearly the light lilac tint of *Cattleya Loddigesii*. The lip specially affects the form of *Laelia Perrinii*, considerably enlarged, but the colour more approaching that of *C. Loddigesii*. The inside of the throat, like the outside, is porcelain white, marked at the opening with a clear yellow undulating band; the front part, or apex of the lip, is striped with bright rose.

" By these different characters and the exquisite delicacy of its colours, this pretty plant forms with its congeners a most charming contrast.

" At its first flowering I observed that the number of pollinia developed were six, of which four were a little larger than those of *Cattleya Loddigesii*, but the two others not nearly so large. Since that time, this peculiarity has been regularly repeated, and a minute examination has enabled me to detect the remaining two abortive ones of which I could not detect the slightest trace at the first time of flowering.

" Although the fact is only mentioned as a matter of purely scientific interest, it may be worthy of notice. "

M. Bleu has also informed us, in a letter, that five seedlings only were raised. Of this number, four were of the variety *delicata*, while " the fifth is particularly distinguished by the less elongated form of the lip, and particularly by the very intense reddish violet colour of the front part of the lip. "

L. L.

(*Continued from page* 16.)

support, after which the two ends should be tied round the shoot. The tie is then firmly fixed, and cannot slip along the support.

Sometimes, when the growths swell and become changed into bulbs, the space left by the raffia is not large enough and they may become compressed. The ligatures should be examined from time to time, to see that they are not injuring the living parts.

(*Journal des Orchidées.*)

LYCASTE MACROBULBON LINDL. var. YOUNGII ROLFE

PL. CCCLXVIII.

LYCASTE MACROBULBON LINDL. var. YOUNGII ROLFE.

THE LARGE-BULBED LYCASTE, YOUNG'S VARIETY.

LYCASTE. Vide *Lindenia,* Engl. ed., vol. III, p. 11.

Lycaste macrobulbon. Pseudobulbis magnis ovatis compressis, foliis plurimis oblongis membranaceis nervosis, pedunculis radicalibus solitariis unifloris, vaginis distantibus inflatis, sepalis oblongo-ovatis patentibus basi parum productis, petalis minoribus latioribus, labello longitudine petalorum oblongo trilobo disco lamella oblonga, lobo intermedio oblongo-ovato recurvo crispatulo.

Lycaste macrobulbon LINDL., in *Paxt. Fl. Gard.,* III, p. 126.

Maxillaria macrobulbon HOOK. *Bot. Mag.,* LXXII (1846), t. 4228.

Var. Youngii. Pseudobulbis minoribus, labello immaculato.

Var. Youngii ROLFE *supra.*

The yellow-flowered Lycastes form a rather difficult group; speaking, of course, from a botanical standpoint. Two of them, *L. aromatica* LINDL., and *L. cruenta* LINDL., are fairly well known in gardens, while *L. cochleata* LINDL., and *L. consobrina* RCHB. F., are also occasionally met with, though not always under their correct names, for in several collections I have found the last-named one doing duty as *L. cochleata* LINDL., which is a very rare plant, though represented in at least one collection at the present day. Besides these may be mentioned *L. crinita* LINDL., and two or three others scarcely known except by description.

One of these imperfectly known species is *L. macrobulbon* LINDL., figured at t. 4228 of the *Botanical Magazine* as *Maxillaria macrobulbon* HOOK., of which I have not seen an authentic specimen. It was sent by PURDIE from the Sierra Nevada, Santa Martha, New Granada, to Kew, nearly half a century ago. It flowered in the Kew collection, probably in the spring of 1864, and was figured in the *Botanical Magazine* under the name of *Maxillaria macrobulbon* HOOK. It is compared with *Maxillaria aromatica* HOOK., and *M. cruenta* LINDL. (to which genus these plants were then referred), but is said to differ from the former by the larger size of every part of the plant, the scentless flowers and different shape of the lip, and from the latter by its smaller, differently coloured blossoms, the very dissimilar labellum, and the absence of the crimson blotch on its under side.

There is a plant in the collection of JOHN S. MOSS, Esq., Wintershill, Bishops Waltham, which may belong to this species. Mr. Moss states that Prof. REICHENBACH once told the late Mr. B. S. WILLIAMS that he believed it to be this, and a flower from the plant agrees fairly well with the figure above cited. I have not seen the pseudobulbs, however.

The plant here figured exists in some collections under the name of *L. Youngii*, though I know nothing about its origin, and cannot find that it has ever been described. A flower from the collection of Sir TREVOR LAWRENCE, BART., of Burford, Dorking, is scarcely distinguishable from the one just named. The materials at hand are insufficient to settle the question of the identity or otherwise of these three forms, and I therefore venture to consider the present one as a variety of *L. macrobulbon*. If Mr. Moss' plant belongs to this species, it is doubtful if the varietal name can be maintained, but it is perhaps safest to take the course now proposed. Further materials may enable us to settle the question, and also to decide the limits of two or three other species of the same group. They are well worthy of more extended cultivation.

R. A. ROLFE.

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VANDA TRICOLOR LINDL. var. PLANILABRIS LINDL.

A. Goossens pinx. J. Goffart chrom.

PL. CCCLXIX.

VANDA TRICOLOR LINDL. var. PLANILABRIS LINDL.

THE THREE-COLOURED VANDA, FLAT-LIPPED VARIETY.

VANDA. Vide *Lindenia,* Engl. ed., vol. IV, p. 41.

Vanda tricolor. Caulis erectus, validus, elongatus. Folia disticha, lorata, recurva, apice irregulariter dentata, basi canaliculata. Racemus axillaris, suberectus v. interdum subpendulus, pauci- v. pluriflorus. Bracteae rigidae, ovatae, obtusae, breves. Pedicelli elongati. Sepala coriacea, late unguiculata, limbo rotundato-ovata, obtusa, undulata. Petala similia, paullo minora. Labellum trilobum, lobis lateralibus rotundato-oblongis, erectis, intermedio late pandurato emarginato v. brevissime bidentato, disco per axin trilineato, calcare brevi obtuso. Columna latissima.

Vanda tricolor LINDL. in *Bot. Reg.,* XXXIII (1847), sub. t. 59. — *Id.* in PAXT. *Fl. Gard.,* II, p. 19, t. 42, fig. 1. — *Id. Fol. Orchid., Vanda,* p. 5. — *Bot. Mag.,* t. 4432. — *Fl. des Serres,* t. 641, fig. 1. — LEM. *Jard. Fleur.,* II, t. 136, fig. 1. — *Pescatorea,* t. 42. — WARN. *Sel. Orch.,* ser. I, t. 3. — *Orchid Album,* II, t. 77. — *Lindenia,* IV, p. 49, t. 167. — DE PUYDT, *Les Orch.,* p. 335, t. 48.

Vanda suaveolens BLUME, *Rumphia,* IV (1848), p. 49.

Vanda insignis WARN. *Sel. Orch.,* ser. I, t. 3 (*non Blume* (1)).

Var. cinnamomea LINDL. in PAXT. *Fl. Gard.,* II, p. 19. — *Gartenflora,* XVIII, p. 131, t. 614.

Var. pallens LINDL. in PAXT. *Fl. Gard.,* II, p. 19.

Var. Patersoni O'BRIEN in *Gard. Chron.,* 1884, II, p. 236, fig. 46. — *Id.,* 1890, I, pp. 133, 135, fig. 21. — *The Garden,* XXIII, p. 134, t. 375.

Var. suavis VEITCH *Man. Orch.,* VII, pp. 106, 107, cum xyl.

Vanda suavis LINDL. in *Gard. Chron.,* 1848, p. 351. — RCHB. F. *Xen. Orch.,* I, p. 26, t. 12. — *Pescatorea,* t. 8. — *Bot. Mag.,* t. 5174. — *Fl. des Serres,* t. 1604-5 (*Var. Hrubyana* RCHB. F.). — DE PUYDT, *Les Orch.,* p. 333, t. 47. — JENN. *Orch.,* t. 23. — *Orchid Album,* IV, t. 180. — *Id.,* VII, t. 324 (*Chatsworth var.*).

Var. Warneri WARN. *Sel. Orch.,* ser. II, t. 39.

Var. planilabris. Labello latiori planiori.

Var. planilabris LINDL. in PAXT. *Fl. Gard.,* II, p. 19, t. 42, fig. 2. — *Fl. des Serres,* t. 641, fig. 2. — LEM. *Jard. Fleur.,* II, t. 136, fig. 2. — *Orchid Album,* II, t. 87. — *Orchidophile,* 1889, pp. 216, 217, cum. xyl.

Vanda tricolor is a native of Java, and was originally introduced to Europe in 1846 by Mr. THOMAS LOBB, who was collecting for Messrs JAMES VEITCH & SONS, of Chelsea. It is a native of the hills in the western part of the island, at about 1,500 to 2,500 feet elevation, and is now said to occur chiefly on large trees that were originally planted to shade the now abandoned coffee plantations. BLUME also found it growing on the sugar Palm (*Arenga saccharifera*), and described it under the name of *V. suaveolens*, but his description appeared subsequent to that of LINDLEY.

From the outset this species has been observed to be very variable in the colour of its flowers, and to a lesser extent also in their shape. Many forms have received distinctive names, and one of them has been elevated to the rank

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(1) This figure was inadvertently cited on p. 41 of the present volume as *V. insignis* BLUME, which it is not.

R. A. R.

of a distinct species, under the name of *V. suavis* LINDL., though it is so completely joined with the original *V. tricolor* by a series of intermediate forms that it cannot be separated by any absolute specific characters, as has repeatedly been pointed out. It grows with *V. tricolor* in its native home, and is imported with it, though it is said to be far less common than the typical form. Both were received in the same original importation.

The variety *planilabris*, here figured, is also one of the original varieties, and received its name from Dr. LINDLEY. It is characterised by the front lobe of the lip being broader and less convex than the type, with the ridges of the disc less distinct, and the apex less deeply toothed, which characters give it a very distinct appearance, as LINDLEY originally pointed out.

Ever since its introduction *Vanda tricolor* has been a great favourite with horticulturists, as it has proved very easy to cultivate, and its handsome flowers are not only very freely produced, but remain a long time in perfection. It succeeds admirably under the treatment given to Aerides, and requires but little shade, as the plants flower more profusely when in a light sunny position, a thin shading being used during very bright sunshine. It flowers at various periods of the year, but more generally perhaps during spring and autumn, at which times it makes a very gay appearance, especially where numerous examples and varieties are grown.

R. A. ROLFE.

CATTLEYA LABIATA LINDL.

1. var. ALBA. 2. var. GLORIOSA. 3. var. FLAMMEA.

J. Goffart chrom.

PL. CCCLXX.

CATTLEYA LABIATA LINDL.

THE LIPPED CATTLEYA.

CATTLEYA. Vide *Lindenia,* Engl. ed., vol. I, p. 7.

Cattleya labiata. Pseudobulbis clavato-fusiformibus subcompressis monophyllis, foliis lineari-oblongis obtusis coriaceis, spatha pedunculi longitudine, floribus magnis, sepalis lineari-lanceolatis acutis, petalis rhomboideo-ellipticis obtusis undulatis multo latioribus, labello elliptico-oblongo emarginato crispo-undulato, disco laevi, columna clavata.

Cattleya labiata LINDL. *Coll. Bot.,* t. 33. — Id. *Bot. Reg.,* t. 1859. — HOOK. *Exot. Fl.,* t. 157. — *Bot. Mag.,* t. 3998. — *Lindenia,* III, p. 35, t. 112.

When, in February 1891, we published our former figure of *Cattleya labiata*, which we had had the good fortune to re-discover and re-introduce some months before, under the name of *C. Warocqueana*, we wished to wait till a future period for the exact determination and classification of the magnificent Orchid last named. It was difficult to divine that the plant discovered in abundance in a region already known to explorers, was the celebrated autumn-flowering species, which had been sought in vain for so many years. The hypothesis moreover remained open, even after the collector's informations, because the numerous allied forms known under the names of *Trianae*, *Eldorado*, *Mossiae*, *Mendeli*, *Warneri*, *Gaskelliana*, etc., do not present any very appreciable differences, speaking from a botanical standpoint.

The first flowering took place during the month of October 1891, and everyone will recall to mind with what marvellous *éclat*. From this moment *Cattleya labiata* was recognised by us, and notwithstanding the strong doubts expressed by many persons who where unable to believe in the resurrection of a species which they thought to be lost, we did not hesitate to announce this identity on the first of November 1890, in our *Journal des Orchidées*, as the following quotation will prove : —

" Half a dozen flowers, which have just appeared here among *Cattleya*
" *Warocqueana*, resemble in a striking manner the famous *C. labiata autumnalis*,
" so much sought after for so many years, and whose habitat has remained
" unknown for half a century, notwithstanding the most obstinate search. Is
" it therefore re-discovered ?

" In any case, if it has been re-discovered, it is considerably embellished
" and augmented by a series of allied forms of a splendour and brilliancy
" unknown up to the present. "

To-day, after additional importations and three years of cultivation have

enabled us to become acquainted with the plant and its numerous variations, we have no need to alter in any way what we then said. The slight doubt which then existed has disappeared, and has become a certainty. It is known at the present time that the re-introduction of *Cattleya labiata* has been accompanied by a vast series of superior varieties which the partial importations of former times failed to reveal.

It is to give a more complete idea of these variations that we publish to-day a new plate of *Cattleya labiata* (or *Warocqueana*). We have here figured four of the most beautiful and most showy varieties, of which we now give a summarised description.

The variety *flammea*, which will be found at the right hand corner of the plate, is one of the first which flowered in October 1890. It was unanimously awarded a First-class Diploma of Honour at a meeting of the ORCHIDÉENNE on October 12 th. of that year, and, two days later a First-class Certificate at a meeting of the Royal Horticultural Society of London. It is a great beauty, of a soft rose, which the English Journals so justly characterised by the term " warm rose, " with two superb orange-yellow blotches on the two sides of the throat.

The variety *alba*, which will be found at the top of the plate, is wholly white, excepting the yellow disc of the lip; the picture of this flower was made after the plant which flowered in the celebrated collection of M. GEORGE WAROCQUÉ, at Mariemont.

The variety *gloriosa* which will be found at the bottom of the plate near the middle, also the variety *majestica*, which figures on the left, were recently described in this work (vol. V, page 8), and we refrain from repeating the eulogiums which have been called forth on the occasion of their flowering in many fine collections in England and on the Continent.

L. L.

CYRTOPODIUM ALICIAE L. LIND. et ROLFE

A. Goossens pinx. P. De Pannemaeker chrom

PL. CCCLXXI.

CYRTOPODIUM ALICIAE L. LIND. et ROLFE.

H. H. THE PRINCESS OF MONACO'S CYRTOPODIUM.

CYRTOPODIUM. Vide *Lindenia,* Engl. ed., vol. IV, p. 19.

Cyrtopodium Aliciae. Pseudobulbi conico-fusiformes, magni, apice polyphylli. Folia lineari-lanceolata, acuta, erecta. Scapus ad basin pseudobulbi productus, erectus, apice paniculatus, multiflorus. Bracteae petaloideae, ovatae, obtusae v. subacutae. Sepala elliptico-obovata, obtusa, undulata. Petala obovata, apiculata. Labellum unguiculatum, trilobum, lobis lateralibus divaricatis suberectis obovato-oblongis obtusis, intermedio breviore rotundato-oblongo obtuso, crista subhemisphaerica crenulata. Columna brevis, clavata.

Cyrtopodium Aliciae L. LIND. et ROLFE, *supra.*

The genus *Cyrtopodium* is limited to Tropical America, and consists of several very stately and handsome species, which require considerable room for their full development. Consequently they are not represented in all collections, but where space can be afforded they amply repay any attention that may be bestowed on them. Quite recently we had the pleasure of seeing a splendid plant both of *C. maculatum* and *C. Andersonianum* in flower, which enabled one to realise in some small degree the imposing sight they must present when seen in masses in their native wilds, as has been more than once recorded by travellers. A peculiarity possessed by some of the species is that the bracts are petaloid and spotted like the sepals and petals, which serves to enhance their beauty. *C. maculatum*, recently figured in the present work, is the most remarkable species in this respect, but the character is also seen in others.

The two species already mentioned have hitherto alone been represented in European gardens, but now we have an additional one to record. It is a native of Brazil, and was introduced by Messrs LINDEN, L'HORTICULTURE INTERNATIONALE, Brussels, from the Pernambuco district. It flowered in their establishment last autumn. The flowers are smaller than those of the two other cultivated species, and in their colour and markings have a certain resemblance to those of *Odontoglossum Hunnewellianum.*

The species is allied to *C. cristatum* LINDL., a Guiana species which we believe has not yet been introduced to cultivation. The bracts, though much smaller than in *C. punctatum*, are, as in that species, coloured like the sepals and petals, and the general details of the flower also indicate a relationship with that species.

The general habit and appearance of the plant are well shown in the annexed plate. The bracts are light yellowish green, covered with numerous red-brown spots. The flowers are light yellowish green, the sepals and petals being marked

with numerous red-brown spots. The lip is lighter and but little spotted, except on the crest, which is yellow with numerous small red-brown dots.

The following treatment has been recommended for these plants. Place them in large pots, in a compost of rich fibrous loam with a little rotten manure, and place them in the East Indian house. As soon as they begin to grow, liberal supplies of water should be given. When growth is completed, remove to the Cattleya house, and give a long rest with but little water. Vigorous growth should be induced, so that the plants may be strong enough to flower well. The flowers are produced from the young growths just after starting.

R. A. Rolfe.

COLAX JUGOSUS LINDL.

PL. CCCLXXII.

COLAX JUGOSUS LINDL.

THE RIDGED COLAX.

COLAX. Perianthium vix ringens, in mentum breve productum, subglobosum. Sepala et petala subaequalia, oblonga. Labellum unguiculatum, immobile, inappendiculatum, ungue brevi sublineari in laminam dilatatam trilobam dilatato. Columna semiteres, subelongata. Anthera carnosa, subimmersa. Pollinia 4, obovoidea, caudiculae membranaceae elongatae angustatae adnata; glandula obscura. Rostellum quinquelobum.

Herbae pseudobulbosae Brasilienses. Folia terminalia et radicalia plicata. Pedunculi radicales, erecti, 1-4 flori, vaginati. Flores majusculi.

Species descriptae 5, Brasilienses.

Colax LINDL. *Bot. Reg.*, XXIX (1843), *Misc.*, p. 50.

Colax jugosus. Pseudobulbi ovoideo-oblongi. Folia elliptico-lanceolata, acuminata, plicata, basi subattenuata. Pedunculus 2-4 florus. Bracteae lanceolato-ovatae, acutae, cucullatae. Sepala rotundato-ovata, obtusa, alba. Petala rotundato-obovata, obtusa, alba fasciatis purpureis creberrime notata. Labellum trilobum, villosum, jugosum, album, purpureo-fasciatum, lobis lateralibus parvis, intermedio suborbiculari. Columna villosa.

Colax jugosus LINDL. *Bot. Reg.*, XXIX (1843), *Misc.*, p. 51. — RCHB. F. *Xen. Orch.*, I, p. 107, t. 41. — *Bot. Mag.*, t. 5661. — *Ill. Hort.*, XIX, p. 128, t. 96. — *Orchidophile*, 1881, pp. 35, 36, cum. xyl.

Maxillaria jugosa LINDL. *Bot. Reg.*, XXVII (1841), *Misc.*, p. 51.

Var. punctatus RCHB. F. in *Gard. Chron.*, 1883, pt. II, p. 688.

Var. rufinus RCHB. F. in *Gard. Chron.*, 1883, pt. II, p. 784.

The genus *Colax* was established by LINDLEY on three Brazilian plants formerly referred to *Maxillaria*, but which the author spoke of as more nearly resembling *Promenaea* and *Warrea* in the shape of the perianth. " They have a caudicle, " he remarked, " quite unlike anything at present known among their race. It has no distinct gland, but consists entirely of a thin wavy membrane, strengthened by an elevated line in the middle, and gradually narrowing to the point, where the gland is usually found. It has also a thick fleshy crested anther, whose cells are planted on its lower side, I cannot but regard these circumstances as sufficient to justify the separation of the plants in which they are found as a distinct genus. "

BENTHAM has since united *Colax* with *Lycaste*, to which it is more nearly allied, yet the differences originally pointed out serve equally well to separate it, and these, taken in conjunction with the quite different habit, seem to me sufficient to warrant its retention as a distinct genus.

The present species was introduced from Brazil by Messrs LODDIGES, of Hackney, with whom it flowered in 1841, when it was described by LINDLEY as *Maxillaria jugosa*, evidently in allusion to the ridges on the lip. Two years later it was transfered to Colax. It is a very attractive plant, as the prettily

marked petals form a marked contrast with the white sepals. Two varieties have been described, but they chiefly differ in the amount of spotting on the petals.

As to cultivation, it is recommended that it should be planted in well-drained pots, in a compost of fibrous peat and sphagnum moss, and placed in the Cattleya house.

Colax jugosus was the pollen-parent of the handsome *Zygocolax* × *Veitchii*, the seed-bearer being *Zygopetalum crinitum*.

The following are the other described species of the genus.

Colax modestior Rchb. f. in Otto *Hamb. Gartenz.*, XVI (1860), p. 14. — Native of " Guatemala? " which, however is very doubtful.

C. placanthera Lindl. *Bot. Reg.*, XXIX, *Misc.*, p. 50. — *Maxillaria placanthera* Hook. *Bot. Mag.*, LIX (1832), t. 3173. — Native of Brazil.

C. Puydtii Lind. & André in *Ill. Hort.*, XXVII (1880), p. 5, t. 369. — Native of Brazil.

C. viridis Lindl. *Bot. Reg.*, XXIX, *Misc.*, p. 50. — *Maxillaria viridis* Lindl. *Bot. Reg.*, XVIII (1832), t. 1510. — Native of Brazil.

R. A. Rolfe.

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CATTLEYA × HARDYANA WILLIAMS var. STATTERIANA ROLFE

PL. CCCLXXIII.

CATTLEYA × HARDYANA WILLIAMS var. STATTERIANA ROLFE.

Mr. HARDY'S CATTLEYA, Mr. STATTER'S VARIETY.

CATTLEYA. Vide *Lindenia*, Engl. ed., vol. I, p. 7.
Cattleya × Hardyana. Vide *Lindenia*, Engl. ed., vol. II, p. 37.
Var. Statteriana. Sepala et petala albidula.
Var. Statteriana ROLFE supra.
Cattleya × Statteriana Journ. of Hort., 1892, II, pp. 269, 277, fig. 38. — *Gard. Chron.*, 1892, II, p. 378.

Two handsome varieties of the variable *Cattleya × Hardyana* have already been figured in this work (*Var. laversinensis*, t. 305, and *var. Gardeniana*, t. 353), but the present superb form is still more distinct from the original type, and illustrates once more the wide range of variation to be met with among different individuals of the same natural hybrid.

It is a plant from the collection of T. STATTER, Esq., Stand Hall, Whitefield, Manchester (gr. Mr. R. JOHNSON), which was exhibited at a meeting of the Royal Horticultural Society on September 20 th., 1892, under the name of *Cattleya × Statteriana*, on which occasion it was awarded a First-class Certificate. It is a unique plant, with flowers of the size and shape of the typical *C. × Hardyana*, but remarkably different in colour. The sepals are dull ivory-white, with a faint yellow tinge, and the broad, recurved and elegantly undulated petals are also of an ivory-white shade. The lip is very large and handsome, with a very short tube; the ground colour rich nankeen yellow, and the front lobe rich velvety purple-crimson, with a rosy carmine feathering round the beautifully undulated margin. The lip is crimson at the base with yellow veining, and some purplish radiating lines extend along the disc, leaving the sides rich yellow. The outer sides of the tube are deeply suffused with carmine.

It is a magnificent variety, in which the characters of *C. Dowiana aurea* come out more prominently than usual.

It is pretty evident that in the Frontino district, where the two parent species, *C. Dowiana aurea* and *C. Warscewiczii* (*C. gigas*) grow together, they cross very readily, as there is scarcely on importation from this district in which some forms of *C. × Hardyana* do not appear, and as no two seem to come exactly alike, a wide range of variation is seen. The present handsome form is exceptionally distinct, but being derived from the same two species it must be considered as a variety of *C. × Hardyana*.

Considering how valuable this hybrid is, and the interest attached to an

experiment of the kind, it would be an interesting matter if some one would cross the two artificially, and thus confirm or disprove the alleged parentage. There can now be very little doubt on this point, as the large number of hybrids raised artificially has shown so conclusively how the characters of the parents are blended in the offspring, that it becomes a much easier matter to judge of the true nature of these intermediate forms. Yet it would be a very interesting experiment, and if the best forms of the parents were selected some exceptional hybrids might result.

It would also be an interesting matter if some one could observe the particular insect which fertilises the flowers, for I do not remember any record of observations in this genus, though they have been made in several others.

R. A. Rolfe.

LAELIA × OWENIAE L. LIND.

PL. CCCLXXIV.

LAELIA × OWENIAE L. LIND.

Mrs. G. D. OWEN'S LAELIA.

LAELIA. Vide *Lindenia*, Engl. ed., I, p. 41.
Laelia × *Oweniae*. An hybrida inter *L. Perrini* et *L. elegantem* ?

One of the characters so much admired by amateurs in the genera Cattleya and Laelia, so closely allied and so beautiful, is the richness of the deep crimson colour, sometimes purple, sometimes velvety, and passing through a thousand tints equally superb. Thus it is that the *Cattleyas Mossiae*, *Trianae*, *Eldorado*, *gigas*, *Mendeli*, *labiata* and *Laelia purpurata*, are nearly always esteemed, because of the brillant colours of their lip, and that the smaller species, such as *Cattleya Percivaliana*, *C. Skinneri*, *C. superba* and *Laelia pumila* are also much sought after, notwithstanding their modest dimensions. Also the purple varieties of *Laelia* × *elegans* are considered by connoisseurs as having the greatest value among all the forms which this superb and variable Orchid has hitherto produced.

The *Lindenia* has already recently figured *Laelia* (or *Laelio-Cattleya*) × *elegans Broomeana*, without doubt the most celebrated of all the varieties. The plant which we figure to day deserves to be compared with it in point of beauty, which is not by any means a feeble eulogium.

The flowers in form are much like those of *Laelia Perrinii*, but the lateral lobes of the lip are a little different, and the petals are much broader than those of this species. The vegetative organs, on the contrary, are much more like those of *Laelia* × *elegans;* the pseudobulbs are more or less cylindrical, a little broader at the summit than at the base, about sixteen to twenty inches high, and bearing two leaves. The plant therefore, taken as a whole, shows an evident mixture of the characters of the two species above mentioned, and we do not hesitate to consider it a natural hybrid between *Laelia Perrinii* and *L.* × *elegans*, which grow in a wild state in the same region of Brazil, namely in the environs of Rio de Janeiro.

The flowers are of a truly splendid colour, dark carmine-purple with a changing reflection passing into magenta. The tube of the lip is white, with a brilliant carmine-purple band extending from the base to the throat, and then enlarging in front so as to cover the whole of the front lobe and the tips

of the side lobes. The column is white, and bears at its apex some carmine-purple spots.

Laelia × *Oweniae* appeared for the first time at Brussels at a meeting of the Orchidéenne, in February, 1893, when it was awarded a First-class Diploma of Honour, unanimously and by acclamation. It was exhibited by an English amateur, whose collection has been selected with the best taste and will doubtless acquire a great reputation, G. D. Owen, Esq., of Selwood, near Rotherham, Yorkshire. It is justly dedicated to Mrs. Owen.

Laelia Perrinii and *L.* × *elegans* are cultivated both together in the coolest part of the Cattleya house, and there can be no doubt that the same treatment will suit the new plant which we now figure. The time of flowering also appears to be intermediate between that of the two others, for *Laelia Perrinii* flowers in October and November, and *L.* × *elegans* generally begins to flower in May, and continues for the greater part of the summer, while *L.* × *Oweniae* flowered during the present year in February. However we do not yet know if the character will prove permanent, because the plant exhibited at Brussels was from a recent importation.

L. L.

CATTLEYA AMETHYSTOGLOSSA LIND. et RCHB. F. var. ROSEA ROLFE.

A. Goossens pinx. J. Goossens chromo.

PL. CCCLXXV.

CATTLEYA AMETHYSTOGLOSSA LIND. et RCHB. F. var. ROSEA ROLFE.

THE AMETHYST-LIPPED CATTLEYA, ROSE-COLOURED VARIETY.

CATTLEYA. Vide *Lindenia,* Engl. ed., vol. I, p. 7.

Cattleya amethystoglossa. Pseudobulbi elati, teretes, superne sensim incrassati, diphylli. Folia elliptico-oblonga v. ovato-oblonga, obtusa, coriacea. Spatha lineari-oblonga, obtusa. Racemus erectus, validus, multiflorus. Bracteae ovatae, acutae, rigidae, brevissimae. Flores speciosi. Sepala alba, roseo-purpureo maculata, posticum lineari-oblongum, obtusum, laterallia paullo breviora, subfalcata. Petala alba, roseo-purpureo maculata, obovato-oblonga, obtusa. Labellum profunde trilobum, lobis lateralibus oblongis obtusis circa columnam convolutis apice reflexis, intermedio late obcordato-bilobo roseo-violaceo, disco corrugato et papilloso. Columna clavata, arcuata.

Cattleya amethystoglossa LIND. et RCHB. F. ex WARN. *Sel. Orch.,* ser. I, t. 2. — RCHB. F. in *Gard. Chron.,* 1866, p. 315 (pro parte), cum xyl. — WARN. in *Gard. Chron.,* 1866, p. 365. — *Ill. Hort.,* XIV, t. 538. — *Bot. Mag.,* t. 5683. — *Revue Hort.,* 1869, p. 210, cum ic.

Cattleya guttata var. Prinzii RCHB. F. in *Bonplandia,* IV (1856), p. 327. — VEITCH *Man. Orch.,* II, p. 37, cum xyl. — ROLFE in *Gard. Chron.,* 1889, I, p. 619.

Epidendrum elatius var. Prinzii RCHB. F. *Xen. Orch.,* II, p. 33, et p. 173, t. 172, fig. 1.

Cattleya guttata var. Keteleerii HOULLET in *Revue Hort.,* 1875, p. 350, cum ic.

Var. rosea. Sepalis petalisque roseo-suffusis et purpureo maculatis.

Var. rosea ROLFE supra. — *C. amethystoglossa* ROLFE in *Reichenbachia,* ser. 2, vol. I, p. 101, t. 47.

Cattleya amethystoglossa is a handsome winter-flowering species whose history is a very much confused, as will be seen by the above-cited synonymy. It was originally described by REICHENBACH, in 1854, under the name of *Cattleya guttata var. Prinzii,* from a plant which flowered in the collection of Herr REICHENHEIM, at Berlin. Nothing further was then stated about its origin, though REICHENBACH afterwards stated that the plant had been sent from Brazil by Herr PRINZ, after whom it was named.

In 1862 it was figured in WARNER'S *Select Orchidaceous Plants,* under the name of *Cattleya amethystoglossa,* from a plant which first bloomed in the collection of the late F. COVENTRY, Esq., of Shirley, Southampton, whence it passed into Mr. WARNER'S collection, at Broomfield. In 1866 REICHENBACH wrote in the *Gardeners' Chronicle* that *Cattleya amethystoglossa* was introduced long ago by M. LINDEN, and that there were some specimens of it scattered about on the Continent : but in England the species had not been well understood, as Mr. R. WARNER had unfortunately represented the splendid white and amethyst *Cattleya guttata var. Prinzii* in lieu of the true plant. To this Mr. WARNER, replied that the plant was sent to England many years before, by M. LINDEN, under the name of *Cattleya amethystoglossa,* and that the drawing was made from the original plant, and therefore must be authentic.

The plant to which REICHENBACH referred was *Cattleya porphyroglossa* LIND.

et Rchb. f., an allied species also introduced by M. Linden, though not more distinct than the present one, which was considered by Reichenbach as only a variety of *Cattleya guttata*. The name *Cattleya amethystoglossa* was twice mentioned prior to the publication of Warner's work, above cited, but without a word of description to show to what species it was intended to refer. The species therefore dates from the publication of this work, and there is fortunately no doubt as to the plant intended, nor yet as to its distinctness from every other known Cattleya.

The three species are closely allied, but the present one is a larger, more robust plant, with larger flowers, and white sepals and petals spotted with rose-purple. The lip also is markedly different, the front lobe larger, with a shorter broader claw, and wholly covered with wart-like papillae; not smooth, as in the allied species. These differences are quite constant, and there are no intermediate forms to minimise their importance.

This noble species is a native of Bahia, where it grows on rocks fully exposed to the sun, and never very far inland. It is said to revel in a scorching sun, and not to be injured by the droughts which annually occur. The plants become much shrivelled, but soon plump up again when the copious rains commence, and the young growths begin to push rapidly.

The plant should receive plenty of heat and light, only being shaded from the hottest sunshine, and abundance of water during growth. When this is completed, the watering should be gradually reduced and a decided rest given.

The variety *rosea*, here figured, differs from the type in having the flowers suffused with rose. They are perhaps also a little smaller. It has appeared in several collections, from the introductions of Messrs Linden, and others, and deserves a distinctive name, which is here proposed. The plant here figured flowered in the collection of Messrs Linden, L'Horticulture Internationale, Brussels.

R. A. Rolfe.

CATTLEYA MOSSIAE HORT. var. MENDELI L. LIND.

A. Goossens pinx. *P. De Pannemaeker chrom.*

PL. CCCLXXVI.

CATTLEYA MOSSIAE HORT. var. MENDELI L. LIND.

CATTLEYA. Vide *Lindenia*, Engl. ed., vol. I, p. 7.
Cattleya Mossiae. Vide *Lindenia*, IV, p. 85.
Var. Mendeli. Varietas florum et praecipue petalorum sepalorumque colore *Cattleyae Mossiae* similis.

In the same manner as in former volumes of this publication, in the case of Cypripedium, and of different varieties of *Cattleya Trianae*, we to day devote an entire number of the *Lindenia* to four Cattleyas and Laelias. The reader will no doubt be able to realise the difficulty of finding models more worthy to represent these elite genera than those which we have the good fortune to be able to present them with to-day.

The plant figured on the opposite page flowered among *Cattleya Mossiae* from an importation made by L'HORTICULTURE INTERNATIONALE, of Brussels. In general aspect it shows no difference from other plants of the same species. However in its inflorescence it approaches nearer to the characters of *C. Mendeli*, by the form of its flowers, the breadth of the segments, and their pale colour. The lip appears about intermediate between the two species, and so variable are they in this organ (especially *C. Mossiae*) that it is difficult on inspection to say to which of them it belongs.

Our personal opinion is that this curious and remarkably beautiful plant may be a natural hybrid between *C. Mossiae* and *C. Mendeli*. Although the respective habitats of these two species are so remote, the thing is not impossible. In any case, as *C. Mossiae* and *C. Mendeli* are considered from a botanical point of view as varieties of *C. labiata* we may admit that the purely horticultural classification the classification of their forms is a purely horticultural and not very important matter; we propose therefore to designate it by the above name, to recall its particularly intermediate character.

Cattleya Mossiae and *C. Mendeli* present but little difference as regards their requirements in cultivation, and the treatment they receive will also suit the new variety now under consideration. We know that many Cattleyas flower immediately after they have completed their new growths, before resting, as *C. aurea*, *Gaskelliana* and *Warneri*, and a still larger number after a season of rest, from the bulbs of the preceding year, and, lastly, that *C. labiata* flowers some time after having completed its growth, during its resting period. *Cattleya Mossiae* and *C. Mendeli* belong to the second category. About the middle of September their growth is generally completed, and at that time the waterings should be gradually diminished, and at the same time the temperature of the

houses, by giving them abundant ventilation. We also let the sun shine freely on the plants, except when it is too hot, in the middle of the day. Air and sun are indispensable, in order to harden and ripen the growths, and the more they profit generally by these two elements the more abundant and beautiful will be their flowering. Air should be given up to the end of October, and during part of November whenever the season is favourable.

During the winter the plants are kept in a state of repose, and the waterings should be light, once or twice a week, to prevent them shrivelling. The house should be kept very clear during this season, and we advise that the glass should not be covered with mats, as is so often done, to keep out the cold. As much heat should be given as necessary, but let them always have the light of day, which is indispensable.

L. L.

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PART XXIX. JUNE 1893.

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696.	**Cypripedium Morganiae**, bonne plante, 1 pousse . .	»	125
697.	**Oncidium zonatum**, bonne plante, 3-4 bulbes	»	25
698.	**Houlletia Brocklehurstiana**, forte plante, 4-5 bulbes .	»	20
699.	**Dendrobium purpureum candidulum**, 5 bulbes . . .	»	20
700.	**Lycaste gigantea**, 4 bulbes, forte plante	»	12
701.	**TRICHOPILIA BREVIS**, belle plante, 5 bulbes . . .	»	—
702.	**Phajus maculatus**, forte plante, 10-12 bulbes. . . .	»	10
703.	**Cattleya aurea**, belle plante, 5-6 bulbes.	»	25
704.	**Laelia anceps morada**, 10 bulbes, belle plante . . .	»	10
705.	**Masdevallia Harryana**, belle plante.	»	8
706.	» » **atrosanguinea**, bonne plante.	»	40
707.	» » **coerulescens**, bonne plante .	»	20
708.	» » **coccinea**, bonne plante. . .	»	25
709.	» » **Comet**, bonne plante. . . .	»	60
710.	» » **conspicua**, bonne plante . .	»	75
711.	» » **delicata**, bonne plante . . .	»	50
712.	» » **elegans**, bonne plante . . .	»	40
713.	» » **EXCELSIOR**, bonne plante .	»	—

Nos			
714.	Masdevallia Harryana **KEGELJANI**, bonne plante .	fr.	—
715.	» » **ILLUSTRIS**, bonne plante .	»	—
716.	» » **magnifica**, bonne plante . .	»	40
717.	» » **L'ETOILE**, bonne plante . .	»	—
718.	» » **rosea**, bonne plante	»	15
719.	» » **REGINAE**, bonne plante . .	»	—
720.	» » **sanguinea**, bonne plante . .	»	15
721.	» » **splendida**, bonne plante. . .	»	40
722.	» » **salmonea**, bonne plante. . .	»	75
723.	» » **regalis**, bonne plante . . .	»	25
724.	» » **splendens**, bonne plante . .	»	25
725.	» » **Van Houttei**, bonne plante .	»	15
726.	» » **VERSICOLOR**, bonne plante.	»	—
727.	» » **violacea**, bonne plante. . .	»	20
728.	Odontoglossum **grande**, 4-5 bulbes	»	5
729.	» **coeleste**, bonne plante, 3-4 bulbes. .	»	15
730.	» **coronarium**, bonne plante	»	10
731.	» **Halli**, bonne plante imp., 4-5 bulbes .	»	7
732.	» **cirrhosum**, bonne pl. imp., 3-4 bulbes.	»	8
733.	» **vexillarium**, bonne plante	»	7
734.	» » belle plante.	»	15
735.	**DENDROBIUM FALCONERI GIGANTEUM**, jne pl.	»	—
736.	**Sobralia liliastrum**, forte plante	»	25
737.	**Cattleya labiata autumnalis**, bonne plante	»	7
738.	» » » belle plante.	»	15
739.	» » » forte plante.	»	25
740.	**Odontoglossum triumphans**, 4-5 bulbes	»	15
741.	» **tripudians**, 4-5 bulbes.	»	10
742.	**LAELIA ELEGANS SCHILLERIANA**, 8 bulbes, 12 feuilles	»	200
743.	**Cattleya Percivalliana**, 6-7 bulbes	»	10
744.	**Cymbidium eburneum**, 2 tiges.	»	12
745.	**CATTLEYA MENDELI FORMOSA**, var. hors ligne .	»	—
746.	**Masdevallia Veitchi grandiflora**, bonne plante . . .	»	40
747.	**Maxillaria luteo-alba**, 6 bulbes, belle plante	»	10
748.	**Cymbidium tigrinum**, belle plante	»	25
749.	**Dendrobium Jenkensi**, bonne plante	»	8
750.	**BRASSIA FINETIANA**, 4 bulbes, belle plante . . .	»	—
751.	**Maxillaria nigrescens**, belle plante	»	7
752.	**CATASETUM TENEBROSUM**, belle plante, 4 bulbes .	»	—
753.	**COELOGYNE CRISTATA ALBA**, 7 bulbes, bonne pl.	»	125
754.	**Cattleya Lawrenceana**, 5-6 bulbes, bonne plante . .	»	25
755.	**Mormodes maculatum**, 5 bulbes, 3 pousses	»	50
756.	**Oncidium luridum**, bonne plante	»	5
757.	**SOBRALIA VIOLACEA**, belle plante	»	—
758.	**Coelogyne fuliginosa**, boune plante	»	10
759.	**Epidendrum vitellinum, majus**, belle plante	»	10
760.	**Oncidium Bungerothi**, bonne plante.	»	15
761.	**Bletia catenulata**, bonne plante, 3 bulbes	»	15
762.	**Dendrobium Freemanni**, bonne plante	»	7
763.	**Odontoglossum pulchellum**, belle plante	»	10
764.	» **cordatum**, 4-5 bulbes	»	5
765.	**Brassia maculata**, 4 bulbes, bonne plante	»	5
766.	**CIRRHOPETALUM AMESIANUM**, bonne plante . .	»	—
767.	**Dendrobium formosum giganteum**, bonne pl., 6 bulb.	»	10
768.	» **superbum anosmum**, bonne plante . .	»	15
769.	« **Brymerianum**, bonne plante, 10 bulbes .	»	10
770.	» **densiflorum**, belle plante	»	15
771.	» **Falconeri**, belle plante.	»	20
772.	» **dixanthum**, bonne plante	»	10
773.	» **fimbriatum**, bonne plante, 5 bulbes. . .	»	12
774.	» **thyrsiflorum**, bonne plante, 5-6 bulbes .	»	10
775.	» **Dalhousieanum**, forte plante, 5-6 bulbes.	»	20
776.	**CATTLEYA MENDELI SUPERBISSIMA**, 5 bulbes, variété hors ligne.	»	—
777.	**Epidendrum lanipes**, belle plante	»	10
778.	**Brassia Keiliana**, 4 bulbes, belle plante	»	15
779.	**Lycaste Skinneri**, bonne plante	»	5
780.	**Liparis elata**, bonne plante	»	15
781.	**MAXILLARIA CALLICHROMA**, belle pl., 4 bulbes.	»	—
782.	**Gomezia recurva**, forte plante	»	8
783.	**LAELIA PURPURATA FASTUOSA**, 5 bulbes, bonne plante, variété hors ligne	»	—

Nos			
784.	**Cattleya Forbesi**, 6 bulbes, bonne plante	fr.	20
785.	**Odontoglossum Boddaerti**, 4-5 bulbes	»	8
786.	» **arachnoides**, 4-5 bulbes	»	5
787.	» **odoratum**	»	5
788.	**LAELIA ALICIAE**, 5 bulbes avec feuilles	»	—
789.	**Odontoglossum Schillerianum**, 4-5 bulbes, forte pl. .	»	50
790.	» **Reichenheimi**, 4-5 bulbes, forte plante	»	8
791.	**LAELIA ELEGANS STELZNERIANA**, 10 bulbes, belle plante.	»	—
792.	**Laelia albida**, belle plante	»	6
793.	» **PURPURATA MAJESTICA**, 6 bulbes, 5 feuill.	»	—
794.	**Pilumna nobilis**, bonne plante.	»	5
795.	**Laelia autumnalis**, belle plante 10-12 bulbes	»	8
796.	» » **atrorubens**, belle pl., 8-10 bulbes.	»	20
797.	**Cattleya Percivalliana**, 5-6 bulbes, bonne plante . .	»	8
798.	**LAELIA PURPURATA MARIAE**, 7 bulbes, 5 feuilles, variété hors ligne.	»	—
799.	**Colax jugosus**, 4-6 bulbes, bonne plante.	»	12
800.	**Cyrtopodium macranthum**, forte plante, 3-4 bulbes. .	»	30
801.	**Trichopilia suavis**, belle plante, 5-6 bulbes.	»	10
802.	**LAELIA PURPURATA JOSEPHINAE**, 5 bulb., 4 f.,	»	—
803.	**Oncidium altissimum**, 6 bulbes, belle plante	»	10
804.	**Aganisia cyanea**, belle plante	»	25
805.	**Ada aurantiaca**, 8-10 bulbes, belle plante	»	15
806.	**LAELIA PURPURATA TRIUMPHANS**, 4 bulbes avec feuilles, variété hors ligne	»	—
807.	**Oncidium holochrysum**, 8-10 bulbes	»	20
808.	**Thunia Marshalliana**, forte plante	»	15
809.	**Coelogyne pandurata**, 4-5 bulbes, belle plante . . .	»	20
810.	**LAELIA PURPURATA AMOENA**, 5 bulbes avec feuilles, variété extra	»	—
811.	**Masdevallia Shuttleworthi**, bonne plante	»	10
812.	**Cattleya Mossiae**, bonne plante, 5-6 bulbes	»	5
813.	» » belle plante, 7-8 bulbes.	»	10
814.	**LAELIA PURPURATA LOBATA**, 7 bulb., 6 feuilles, variété supérieure	»	—
815.	**Cattleya gigas**, bonne plante, 5-6 bulbes	»	15
816.	» » belle plante, 7-8 bulbes.	»	25
817.	» **Schroederae**, bonne plante, 5-6 bulbes . . .	»	15
818.	» **nobilior**, bonne plante, 4-5 bulbes	»	40
819.	**LAELIA PURPURATA FASCINATOR**, 4 bulbes avec feuilles, variété hors ligne	»	—
820.	**Vanda tricolor**, belle plante, 15-18 feuilles. , . . .	»	25
821.	**Laelia caulescens**, 10 bulbes, bonne plante	»	10
822.	**Rodriguezia secunda**, belle plante	»	10
823.	**Coelogyne cristata**, belle plante	»	8
824.	**Zygopetalum rostratum**, 3 bulbes, 6 feuilles	»	30
825.	**LAELIA PURPURATA CERES**, 5 bulbes avec feuill., var. hors ligne	»	—
826.	**Saccolabium bellinum**, 5 feuilles, bonne plante . . .	»	40
827.	**Aeriopsis javanica**, 5 bulbes	»	20
828.	**BATEMANNIA COLLEYI**, 4 bulbes, 4 feuilles . . .	»	—
829.	**Oncidium fuscatum**, 4-5 bulbes, belle plante	»	20
830.	**LAELIA PURPURATA FORMOSA**, 6 bulbes, 5 feuill.	»	—
831.	**Miltonia Moreliana**, 6-8 bulbes, bonne plante. . . .	»	25
832.	**Vanda coerulea**, 8-10 feuilles	»	10
833.	**Epidendrum fragrans**, bonne plante, 5-6 bulbes . . .	»	7
834.	**LAELIA PURPURATA DELECTA**, 6 bulbes, 5 feuilles	»	—
835.	**Masdevallia Bruckmülleri**, bonne plante	»	6
836.	**Oncidium auriferum**, bonne plante	»	5
837.	**Oncidium caesium**, bonne plante	»	5
838.	**LAELIA PURPURATA JOHANNAE**, 7 bulb., 5 f. . .	»	—
839.	**Arpophyllum cardinale**, belle plante	»	7
840.	**Laelia harpophylla**, belle plante	»	7
841.	» **rubescens**, bonne plante	»	10
842.	**LAELIA PURPURATA ANNAE**, 7 bulbes, 5 feuilles.	»	—
843.	**Vanda suavis**, belle plante, 10-12 feuilles	»	25
844.	**Epidendrum nemorale**, 6-8 bulbes, bonne plante . .	»	6
845.	**Coelogyne asperata**, 3-4 bulbes	»	20
846.	**LAELIA PURPURATA EMILIAE**, 7 bulbes, 5 feuilles, très belle variété	»	—
847.	**Coelogyne fuliginosa**, belle plante	»	10
848.	**Epidendrum Frederici Guilielmi**, bonne plante . . .	»	15

Nos			
849.	**Masdevallia ignea**, bonne plante	fr.	5
850.	**LAELIA PURPURATA APHRODITE**, 5 bulbes, 4 feuilles, variété extra.	»	—
851.	**Dendrobium nobile**, bonne plante.	»	5
852.	» » belle plante	»	15
853.	» » forte plante	»	10
854.	» » plus forte plante	»	25
855.	**LAELIA PURPURATA BRUNNEA**, 6 bulb., 6 feuill.	»	—
856.	**Dendrobium Wardianum**, bonne plante.	»	5
857.	» » belle plante	»	15
858.	» » forte plante	»	10
859.	**Odontoglossum citrosmum roseum**, belle variété . .	»	20
860.	**LAELIA PURPURATA DIVES**, 8 bulbes, 6 feuilles .	»	—
861.	**Coelogyne tenuis**, bonne plante, 6 bulbes	»	50
862.	**Dendrobium Mac Carthiae**, bonne plante	»	7
863.	» **suavissimum**, forte plante	»	8
864.	**LAELIA PURPURATA PULCHRA**, 8 bulb., 6 feuil., variété extra	»	—
865.	**Odontoglossum polyxanthum**, 4 bulbes, bonne plante.	»	15
866.	**Houlletia odoratissima Lindeni**, 3 bulbes.	»	20
867.	**Vanda tricolor cinnamomea**, 12 feuilles, belle plante .	»	30
868.	**LAELIA PURPURATA STRIATA**, 3 bulb. avec feuil.	»	—
869.	**Masdevallia ludibunda**, 15 feuilles, belle plante. . .	»	25
870.	**Vanda Batemanni**, belle plante, 12 feuilles.	»	40
871.	**LAELIA PURPURATA LINEATA**, 4 bulbes avec feuilles	»	—
872.	**Epidendrum laurum**, 5 tiges, belle plante	»	25
873.	**Restrepia antennifera**, belle plante	»	15
874.	**LAELIA PURPURATA MACROCHILA**, 5 bulb. avec feuilles	»	—

Nos			
875.	**Cattleya Trianae**, bonne plante, 5-7 bulbes	fr.	10
876.	Odontoglossum Roezli album, bonne plante	»	40
877.	**LAELIA PURPURATA MINERVA**, 8 bulbes, 6 feuil.	»	—
878.	**Odontoglossum cordatum**, bonne plante, 4-5 bulbes .	»	10
879.	» **pretiosum**, belle plante, 5-6 bulbes. .	»	15
880.	**LAELIA PURPURATA PHOEBE**, 6 bulbes, 5 feuilles	»	—
881.	**Bifrenaria Harrissoniae**, belle plante	»	5
882.	**Palumbina candida**, boune plante.	»	7
883.	**Oncidium tigrinum**, belle plante.	»	5
884.	**LAELIA PURPURATA JUNO**, 6 bulbes, 5 feuilles. .	»	—
885.	**Bifrenaria aurantiaca**, 6-8 bulbes, bonne plante. . .	»	10
886.	**Cattleya Gaskelliana**, belle plante, 6-8 bulbes . . .	»	7
887.	**LAELIA PURPURATA PRAESTANS**, 5 bulb. avec feuilles	»	—
888.	**Cattleya Warneri superba**, bonne plante imp. . . .	»	15
889.	**Stanhopea Haseloffi**, 4-5 bulbes, imp.	»	40
890.	**LAELIA PURPURATA ALBO-PURPUREA**, 7 bulb. 6 feuilles	»	—
891.	**Odontoglossum nebulosum candidum**, 4-5 bulbes. .	»	10
892.	**Oncidium cucullatum**, bonne plante	»	5
893.	**LAELIA PURPURATA CARMINEA**, 7 bulb., 5 feuill.	»	—
894.	**Odontoglossum Hunnewellianum**, 4 bulbes, belle var.	»	50
895.	**Oncidium ornithorrynchum**, belle plante	»	5
896.	» **incurvum**, belle plante.	»	5
897.	**LAELIA PURPURATA LINDENI**, 8 bulbes, 6 feuilles, variété hors ligne	»	—
898.	**Oncidium varicosum pictum**, 4-5 bulbes	»	20
899.	**Masdevallia tovarensis**, bonne plante	»	10
900.	**Cattleya speciosissima**, bonne plante	»	7
901.	**Oncidium zebrinum**, belle plante, 4 bulbes	»	25

IMPORTATIONS

L'HORTICULTURE INTERNATIONALE vient de recevoir de magnifiques importations de **Cattleya labiata (Warocqueana), Mossiae, speciosissima,** de **Cypripedium insigne montanum, Exul,** de **Vanda coerulea, Aerides quinquevulnerum,** de **Dendrobium nobile** (variétés nouvelles), **Wardianum, Dalhousieanum,** d'**Oncidium Gravesianum, Cymbidium eburneum,** d'**Odontoglossum Halli, Cirrhosum,** etc., et une importation d'**Odontoglossum crispum,** comme il n'en est jamais arrivé en Europe.

PRIX ET DÉTAILS PAR CORRESPONDANCE

NOTA BENE. — Étant son PROPRE IMPORTATEUR — *c'est-à-dire vendant toutes ses importations de première main* — L'HORTICULTURE INTERNATIONALE peut céder ses plantes en sujets *beaucoup plus forts et à bien meilleur compte* qu'on ne les trouve généralement dans le commerce. C'est ce qui explique qu'elle met en vente d'aussi beaux exemplaires à un prix aussi réduit.

MAXILLARIA CALLICHROMA RCHB. F.

PL. CCCLXXVII.

MAXILLARIA CALLICHROMA RCHB. F.

THE PRETTILY-COLOURED MAXILLARIA.

MAXILLARIA. Sepala subaequalia, inter se libera, lateralia basi pedi columnae adnata, mentum saepius parum prominens formantia, patentia v. rarius suberecta. Petala sepalis similia v. interdum minora. Labellum ad apicem pedis columnae ungue brevissimo inflexo erectum, concavum; lobi laterales erecti, medius ovato-oblongus, patens, sepalis paullo v. multo brevior; discus subnudus v. tuberculo instructus. Columna erecta, saepe leviter incurva, crassa, semiteres, exalata, antice concava; clinandrium crassiusculum, concavum, integrum. Anthera terminalis, operc ularis, incumbens, conica v. semiglobosa, unilocularis v. imperfecte bilocularis, saepe pubescens; pollinia 4, ovata, compressa, per paria faciebus planis sibimet incumbentia, inappendiculata, anthera dehiscente stipiti plano brevi nunc brevissimo affixa, glandula squamiformi.

Herbae epiphyticae, caulibus nunc in rhizoma brevissimum, mox in pseudobulbum carnosum uni-bifoliatum incrassatis, nunc ad apicem rhizomatis elongatis dense distichophyllis. Folia coriacea, tenuia v. subcarnosa, praeter costam tenuiter venosa. Scapi v. pedunculi ad basin pseudobulborum v. in axillis foliorum solitarii, bi-multivaginati, semper uniflori. Flores magni v. mediocres.

Maxillaria RUIZ et PAVON *Prodr. Fl. Chil. et Peruv.*, p. 116, fig. 25. — BENTH. et HOOK. F. *Gen. Plant.*, III, p. 554.

Maxillaria callichroma. Pseudobulbi rotundato-ovoidei, parvi. Folia oblonga v. lineari-oblonga, subacuta, basi attenuata. Pedunculus dense vaginatus, vaginis subimbricatis amplis. Bractea spathacea, acuta. Sepala lanceolato-linearia, acuta, lateralia divaricata, apice falcato-incurva. Petala sepalis similia, paullo breviora et angustiora, infra medium reflexa, apice incurva. Labellum trilobum petalis duplo brevius, lobis lateralibus semioblongis, subobtusis, intermedio reflexo elliptico-oblongo obtuso undulato, callo carnoso linguiformi inter lacinias laterales locato. Columna clavata.

Maxillaria callichroma RCHB. F. in *Bonplandia*, II (1854), p. 16. — RCHB. F. in *Walp. Ann.*, VI, p. 518.

This interesting species was originally discovered by WAGENER, when collecting Orchids in Venezuela, being met with near Caracas at 6000 feet elevation. It flowered in the collection of Herr KEFERSTEIN, who about this time was the possessor of one of the finest collections of Orchids in Germany, and was described by REICHENBACH, in 1854, being compared with *Maxillaria leptosepala* LINDL., and *M. setigera* LINDL. In its general appearance it bears a considerable resemblance to *M. luteo-alba* LINDL., especially in the colour of the flowers, but it is a smaller plant in every respect.

For a very long period it was either lost to cultivation or excessively rare, but plants have recently been obtained by Messrs LINDEN, L'HORTICULTURE INTERNATIONALE, Brussels, which, so far as I can judge, belong to the species collected by WAGENER, though I have not been able to compare them with any dried specimen of the original collection. If any specimen exists outside the inaccessible Reichenbachian Herbarium, it would be an interesting matter to compare the two together, as it is very difficult to identify Maxillarias from description only.

The general character of the present plant is shown in the accompanying

plate. The pseudobulbs are ovoid, somewhat compressed, densely tufted, and each bears a single, linear-oblong, subacute leaf, which is narrowed at the base into a distinct petiole. The scapes are very short, not half equalling the leaves, and covered with loose, tubular, sheathing bracts. The sepals are linear, somewhat broader below, attenuated above, and the lateral ones falcately incurved towards the apex. The petals are shorter, strongly recurved below the middle, and as strongly incurved again near the summit, which gives the flower a somewhat curious appearance. The lip is three-lobed; the erect side lobes oblong and subacute, and the recurved front lobe elliptical, with an undulate margin. As regards colour, the sepals are white in their lower part and yellow above, and the petals similar, except that they are strongly suffused with maroon at the base. The side lobes of the lip are deep maroon, and the front lobe white with a yellow disc. It is a pretty little species, much like a smaller edition of *Maxillaria luteo-alba*, which is well known in many collections.

R. A. Rolfe.

LAELIA PURPURATA VARIETIES FROM BRUSSELS

(Extract from *The Garden,* of London)

I have received from M. Linden, of Brussels, a box containing twenty-eight named varieties of this species. All are bright and beautiful, but space will not permit me to notice all the kinds. Some under different names seen at the last Temple Show appeared similar, thus showing the confusion which is likely to accrue from naming all flowers that appear amongst imported plants. Looking at these as a whole, they are exceptionnally beautiful, and I could not have thought so many fine and distinct-looking forms could have been found amongst *Laelia purpurata*. I will describe a few which appeared to me to be the best. First of all comes a fine flower called

Laelia purpurata triumphans. This has fine rose-coloured sepals and petals veined with a deeper shade of the same colour, lip very large and of a deep shining purple, the tip lighter varied with darker lines; throat yellow veined with deep purple.

L. purpurata formosa is a very similar flower with a longer lip.

L. purpurata delecta is very showy, the sepals and petals pure white with a narrow marginal band of rose; lip deep velvety purple, the apex white flushed with rose; throat light yellow.

L. purpurata lobata is a large and distinct flower, measuring upwards of 8 inches across, with broad sepals and petals of a soft rose; lip dark purple

(To be followed on p. 40.)

BRASSIA BICOLOR ROLFE

PL. CCCLXXVIII.

BRASSIA BICOLOR ROLFE.

THE TWO-COLOURED BRASSIA.

BRASSIA. Sepala libera, patentia, angusta, acuminata v. caudata, aequalia v. lateralia longiora. Petala sepalo postico similia v. minora. Labellum ad basin columnae sessile, patens, planum, indivisum, sepalis brevius, basi bilamellatum. Columna brevis, erecta, aptera, apoda; clinandrium parum prominens, truncatum. Anthera terminalis, opercularis, incumbens, valde convexa v. semiglobosa, unilocularis; pollinia 2, cerea, obovoidea, inappendiculata, anthera dehiscente stipiti plano oblongo v. lineari affixa, glandula varia.

Herbae epiphyticae, caulibus abbreviatis, pseudobulbo uni-bifoliato terminatis. Folia sub pseudobulbo pauca v. ad vaginas reducta, coriacea. Pedunculi sub pseudobulbo laterales v. axillares, simplices. Racemi laxi, saepius pauciflori. Flores mediocres v. majusculi, sepalis interdum longissimis. Bracteae breves v. spathaceae.

Species circa 20, Americae tropicae a Brasilia usque ad Indiam occidentalem et Mexicum incolae.

Brassia R. Br. in Ait. *Hort. Kew.*, ed. 2, V, p. 215; Benth. et Hook. f. *Gen. Plant.*, III, p. 564.

Brassia bicolor. Pseudobulbi oblongi v. ovoideo-oblongi, subcompressi. Folia lineari-oblonga, subobtusa. Scapus erectus, multiflorus. Bracteae ovato-oblongae, subobtusae, 5 mm. longae. Sepala lanceolato-linearia, acuminata, lateralia 6 cm. longa, 5 mm. lata, posticum 5 cm. longum. Petala similia, 4 cm. longa, 4 mm. lata. Labellum lanceolato-oblongum, acuminatum, 3.5 cm. longum, 1 cm. latum, margine paullo undulatum; carinae carnosae, parallelae, glabrae, apice dentiformes, dentibus erectis. Columna clavata, 7 mm. longa.

Brassia bicolor Rolfe, *supra*.

The genus Brassia is well known to be a very difficult one, as many of the species are very nearly allied, and several are only known from descriptions, which do not always contain the most important characters. The present species is a native of Peru, and is one of the introductions of Messrs Linden, L'Horticulture Internationale, Brussels. I have tried in vain to identify it either with specimens or descriptions. Judging from a raceme to hand, the species is nearly allied to *B. Wageneri* Rchb. f. (*Bonplandia*, II (1854), p. 14), next which it may be placed, as it has a similar habit, and the floral details have a general resemblance in the two, though there are several important differences. It may be even nearer to *B. cryptophthalma* Rchb. f. (*Gard. Chron.*, 1879, II, p. 554), as the colours stated are much like those of the present one, but the two dark eye-like spots on the green ground of the column under the anther, which suggested the name of *B. cryptophthalma*, are wanting in the one now described, and as other characters are also not in agreement the two cannot be identified together. The only alternative seems to be to consider it a new species, though personally I should prefer to have identified it with some existing description, as it is not satisfactory to keep making new species when there are several old ones of which practically nothing is known. There is always a lurking suspicion that the old species have been passed over unrecognised. On the other hand it must be remembered that many Orchids are local and may

not re-appear until the original district is again visited by some collector. And many species collected years ago, of which good dried specimens exist, have not yet again appeared.

The flowers of the present species are light yellowish green, the lateral sepals having two or three broad, blackish brown blotches or transverse hands near the base. The dorsal sepal and petals are wholly suffused with blackish brown for some distance from the base, or in some cases the dorsal sepal is blotched like the lateral ones, and the colour on the petals may extend beyond the middle. The lip has several deep brown spots around the crest, but no warts. The crest is glabrous, light green, and consists of a pair of parallel fleshy keels, which suddenly terminate at their apex in a pair of erect, slightly diverging teeth. The column is light green, margined with blackish on the sides of the stigma.

R. A. Rolfe.

(*Continued from page* 38.)

bordered with a narrow line of pale rose; the front lobe long and pointed, tipped with rosy lilac; throat white.

L. purpurata Juno is a smaller flower, but very attractive, having pure white sepals and petals and a deep purplish crimson lip margined with white with a triangular blotch of white at the tip; throat tinged with yellow.

L. purpurata fastuosa is a grand flower, having broad sepals and petals, which are rosy purple veined with a darker hue; lip large and of good shape, deep crimson-maroon tipped with lilac, the throat white.

L. purpurata majestica has a very large flower with broad sepals and broader petals, all of a pure white; lip very large, the front lobe very long, deep violet purple bordered with white, the front white veined with violet-purple.

L. purpurata Johannae is a fine variety, having pure white sepals and petals; lip rich purplish magenta, with a white border, the front having a large blotch of white; throat yellow.

L. purpurata pulchra is a very attractive flower; sepals and petals rose colour, with darker lines; lip deep crimson-purple, having a triangular blotch of creamy white at the tip, throat creamy white in the upper part, yellow at the bottom.

L. purpurata Phoebe is a particularly charming flower, having flesh-coloured sepals and petals; lip rosy purple, paler at the tip; throat white, flushed with a lively yellow.

L. purpurata fascinator is another distinct and handsome kind, with the sepals and petals of a deep rosy purple; lip wholly reddish carmine, throat golden yellow.

L. purpurata Josephinae is another handsome and large flower, the petals

(*To be followed on p.* 42.)

LYCASTE SKINNERI LINDL. var. PURPUREA HORT.

J. Goossens pinx. J. Goffart chrom.

PL. CCCLXXIX.

LYCASTE SKINNERI LINDL. var. PURPUREA HORT.

Mr. SKINNER'S LYCASTE, PURPLE VARIETY.

LYCASTE. Vide *Lindenia*, Engl. ed., vol. III, p. 11.

Lycaste Skinneri. Pseudobulbi compresso-ovoidei, demum hunc paucicostati, di-triphylli. Folia elliptico-lanceolata, acuta, plicata, scapo laxe vaginato ascendente duplo longiora. Bractea cucullata, lanceolato-ovata, acuta. Sepala patentia, elliptico-oblonga, acuta. Petala supra columnam convoluta, elliptico-oblonga apicibus reflexis, sepalis duplo breviora. Labellum trilobum, lobis lateralibus erectis, rotundatis, intermedio rotundato-ovato deflexo, callo carnoso linguiformi inter lacinias laterales locato. Columna clavata, subteres, subtus pubescens.

Lycaste Skinneri LINDL. *Bot. Reg.*, XXIX (1843). *Misc.*, p. 15. — PAXT. *Mag. Bot.*, XI, p. 1, cum ic. — *Bot. Mag.*, t. 4445. — *Fl. des Serres*, IV, t. 303, 304. — *Pescatorea*, t. 39 (et var. alba). — *Fl. Mag.*, III, t. 192. — WARN. *Sel. Orch.*, ser. I, t. 10. — *Reichenbachia*, ser. 1, I, p. 91, t. 41 (et var. alba); ser. 2, I, p. 39, t. 18 (var. armeniaca).

Maxillaria Skinneri BATEM. ex LINDL. *Bot. Reg.*, XXVI (1840), p. 48; id., XXVIII, *Misc.*, p. 10. — BATEM. *Orch. Mex. et Guat.*, t. 35.

M. virginalis HORT., ex WILLIAMS *Orch. Gr. Man.*, ed. 6, p. 381.

Var. purpurea. Varietas petalis roseo-purpureis.

Var. purpurea HORT., GARNIER in *Journ. des Orch.*, IV, p. 24.

Numerous varieties of the beautiful *Lycaste Skinneri* have at various times appeared, and received distinctive names. Its variability has been observed from the date of its introduction, now half a century ago, and some twenty years later a writer in the *Gardeners' Chronicle* remarked that the species seemed about to have as great a future as the tulip. There is, however, this essential difference, that the Lycaste has not yet become a florist's flower. The varieties known exist in a wild state, and have flowered out of the various importations that have been made. No one has yet commenced raising the plant systematically from seed, with a view to improving it by selecting the best varieties, though there seems no particular reason why this should not be attempted.

The handsome variety here figured is characterised by its large and well-formed flowers, pale rose sepals, which contrast strongly with the dark rose-purple petals, and its cream-white lip, with only a few rose-coloured spots on the margins of the side lobes. It was exhibited at a meeting of the Orchidéenne, of Brussels, in March last, by two different exhibitors, M. POURBAIX, of Mons, and M. DU TRIEU DE TERDONCK, of Malines, to each of whom a First-class Diploma of Honour was awarded. It is a very handsome variety.

It may be compared with the varieties *nigro-rubra* (*Fl. Mag.*, n. s., t. 35, fig. 2) and *Reginae* (*Orchid Album*, VI, t. 238), both of which, however, differ in having a maroon-crimson lip. The variety *superba* (*Fl. Mag.*, t. 24) has a

white lip with a yellow crest, and in other respects is nearly allied to the handsome form now figured.

Lycaste Skinneri is a plant of the easiest possible culture, and is easily increased by division after flowering. A compost of rough fibrous peat and sphagnum moss should be given, and the pots should be of good size, and well drained. They may be grown in an intermediate house or at the warmest end of the cool house, and during the growing season should receive an ample supply of water. When at rest, the soil should not be allowed to become dry. The plants should be shaded from bright sunshine.

R. A. Rolfe.

(*Continued from page* 40.)

beautifully undulated, and, together with the sepals, white, suffused with rose; lip large, bright rose, veined with purple.

L. purpurata praestans has the sepals and petals white, veined with rose; lip large, bright carmine-purple, paler in front, through which run numerous carmine veins; throat white.

I have selected the above kinds from the number sent, because they appear to me to be the most distinct. I do not say that the remaining varieties are not very beautiful, but they can be more often met with amongst a lot of imported plants.

Wm. Hugh Gower.

(*The Garden*, June 10, 1893.)

ANGRAECUM ARTICULATUM RCHB. F.

PL. CCCLXXX.

ANGRAECUM ARTICULATUM RCHB. F.

THE JOINTED ANGRAECUM.

ANGRAECUM. Sepala subaequalia, libera, patentia. Petala sepalis subsimilia. Labellum basi columnae affixum, continuum, ima basi in calcar longum nunc longissimum productum; lobi laterales ad latera calcaris parvi v. obsoleti, lamina patens v. erecto-patens, integra v. triloba. Columna brevissima, lata, facie concavo, exalata, apoda; clinandrium vix prominulum, truncatum, integrum. Anthera terminalis opercularis, incumbens, convexa, antice saepe producta, vix perfecte bilocularis; pollinia 2, cerea, globosa, sulcata, stipiti plano v. stipitibus 2 distinctis planis affixa, glandula squamiformi simplici v. duplici.

Herbae epiphyticae, caulibus foliatis elongatis v. brevibus non pseudobulbosis. Folia disticha, coriacea v. carnosa, vaginis persistentibus caulem obtegentibus. Pedunculi laterales, simplices. Flores saepius speciosi nunc maximi, racemosi v. rarius subsolitarii.

Species ad 60, pro maxima parte Africae tropicae v. australis et insularum Mascarentium incolae, una in China et Japonia invenitur.

Angraecum BORY *Voy. Iles Afr.*, I (1803), p. 359, t. 19. — BENTH. et HOOK. F. *Gen. Plant.*, III, p. 583.

Angraecum articulatum. Folia cuneato-oblonga, inaequaliter biloba, obtusa. Racemi penduli, graciles, multiflori. Bracteae triangulae, subacutae, breves. Pedicelli ad toros conicos articulati, elongati, graciles. Sepala lanceolato-elliptica, subacuta. Petala sepalis similia v. paullo latiora. Labellum elliptico-ovatum, subacutum, calcari filiformi elongato. Columna brevissima.

Angraecum articulatum RCHB. F. in *Gard. Chron.*, 1872, p. 73. — *Reichenbachia*, ser. 1, II, p. 13, t. 55. — VEITCH *Man. Orch.*, VII, p. 122.

A. descendens RCHB. F. in *Gard. Chron.*, 1882, i, p. 558.

Angraecum articulatum is one of the numerous discoveries of the Rev. W. ELLIS, in Madagascar. On his return from his second missionary visit to that island, he brought home two living plants, which he cultivated at his residence, Rose Hill, Hoddesden, Herts. The species was described by REICHENBACH, early in 1872, from materials forwarded to him by Mr. ELLIS in the autumn of the previous year. This was probably not its first time of flowering, as REICHENBACH remarked that the plant appeared to indulge in endless caprices in the production of polymorphous flowers, and that the spur was very variable, as he had seen it three times as long as the ovary, while in other cases it only equalled, or was even shorter than this organ. Probably these abnormal flowers were only borne at first, before the plant became properly established.

The plants in question afterwards passed into the collection of the late Mr. JOHN DAY, of Tottenham. For many years the plant continued very rare, but now, owing to the numerous importations of Madagascar Orchids which have been made, it has become more widely diffused in cultivation.

It is allied to *A. Ellisii* RCHB. F., but is readily distinguished by its

smaller size, shorter and more rigid leaves, and smaller flowers. Its long pendulous racemes of white flowers are exceedingly graceful and effective.

A plant which has since been considered synonymous is *A. descendens* Rchb. f., described, with some hesitation, from the importations of Messrs Hugh Low & C°, of Clapton, as an ally of *A. articulatum* and *A. Ellisii*.

The plant here figured flowered in the houses of L'Horticulture Internationale, Parc Leopold, Brussels.

R. A. Rolfe.

ODONTOGLOSSUM CRISPUM.

A magnificent form of this plant comes to hand from M. Linden, of Brussels, reminding one much of the variety known as *Veitchianum* now in the possession of Baron Schroeder. It is, however, better than that form; the sepals and petals are broad and full, the latter prettily waved at the edges; the ground colour is white, but very little of this is to be seen, being heavily blotched and spotted with brownish crimson, outside of which comes a shade of rosy purple. The large lip is flat and pure white, boldly spotted and blotched with crimson, the disc rich yellow. It is by far the grandest variety of this species that has come under my notice.

W. H. G.

(*The Garden*, May 13, 1893.)

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PART XXX.

JULY 1893.

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ODONTOGLOSSUM CRISPUM LINDL. var. FERRIERENSE HORT.

A. Goossens pinx. P. De Pannemaeker chrom.

PL. CCCLXXXI.

ODONTOGLOSSUM CRISPUM LINDL. var. FERRIERENSE HORT.

ODONTOGLOSSUM CRISPUM, FERRIÈRES VARIETY.

ODONTOGLOSSUM. Vide *Lindenia,* Engl. ed., vol. I, p. 19.
Odontoglossum crispum. Vide *Lindenia,* Engl. ed., vol. II, p. 51.
Var. Ferrierense. Varietas splendidissime roseo et brunneo-roseo maculata.

Odontoglossum crispum, the popular Orchid, *par excellence*, has been imported during the last ten years in enormous quantities, which may be computed at hundreds of thousands, if not millions. Among these importations, as might easily be foreseen, a large number of variations have presented themselves, both in the form of the flowers and in the number and disposition of the spots. Many of them have received distinctive names, and at the present time it is generally considered that only the varieties of exceptional beauty deserve to be thus distinguished by varietal names, all the colours possible having made their appearance more or less frequently.

The superb variety which we now figure assuredly constitutes one of these exceptions of which we have just spoken. It is of perfect form with broad overlapping segments, fimbriated on the margins in exquisite fashion, and well representing the most elegant type of this celebrated species. As to colour, it is splendid. The segments are suffused with bright lilac-rose, especially along the middle, and further, it is covered with rich brown spots, giving the most beautiful effect.

This remarkable variety flowered during the month of May in the celebrated collection at Ferrières, whose name it bears. The Château de Ferrières is known throughout the world under various titles. Its marvellous architecture and artistic galeries have often been described, and every Orchidist knows also the rich collection of Orchids which has been brought together there, by the skill of its possessor, Baron ALPHONSE DE ROTHSCHILD. It is in this collection, particularly, that the famous *Vanda* (*Renanthera*) *Lowii* is found, which has often been spoken about, and whose luxuriant flowering every year excites the admiration of visitors. Every one of the species which figures here is moreover selected with great care, and nearly every one deserves a special mention.

L. L.

History of the introduction of Eulophiella Elisabethae.

In a short note published in the " Petite Correspondance " in the *Journal des Orchidées* of July 1st., I have attempted tho render justice to the real discoverer of the *Eulophiella Elisabethae*, though at that time I did not specially point out the veritable role played by the jay who has adorned himself with the plumes of the peacock. But when I see the history of this introduction narrated in various directions in a most fantastic fashion, I think it necessary to state the facts of the case — and I notify to the persons concerned, that if they venture to contest my statements I will publish photographs of the documents now in my possession.

In 1890, we received from one of our collectors in Madagascar, M. Sallerin, the most marvellous importation of *Angraecum sesquipedale* and *Grammatophyllum* (*Grammangis*) *Ellisii* which has probably ever been sent to Europe. Among these plants was found an Orchid of very distinct character, which later proved to be *Eulophiella Elisabethae*.

In the month of March 1891, a certain M. Hamelin, whose note paper heading described him as an armateur merchant (*négociant armateur*) wrote to me announcing that the collector Sallerin, of whom we had not heard for several months, was dead, drowned in crossing an arm of the sea in a small pirogue, and this gentleman at the same time offered me his services in sending plants.

In the meantime the *Eulophiella Elisabethae* sent by M. Sallerin had flowered, and revealed itself as a magnificent novelty. I immediately had a watercolour drawing made natural size, and sent it to M. Hamelin, together with several coloured plates, and the part of the *Lindenia* in which the Eulophiella was described and figured, and requested him to search for this species, and collect the plants on our account.

One the 5th. October 1892, M. Hamelin wrote to us that he had recognised the plant on receipt of our pamphlet, and intended to send us examples on October 27 th. Several months passed without more news, but at last on February 5th. 1893, he wrote another letter, received in March, stating : — " *By great efforts I have managed to find* Eulophiella Elisabethae, *by the most unforeseen chance. They are in very small quantities.... I shall send you those which you requested, on the 27th. March or 27th. April.* " We then remained some time without news; finally on the 27th. May, I received from Marseilles a telegram couched in these terms : — " *Arrived with Eulophiella. What price do you offer? Letter follows. — Hamelin.* " Two days afterwards, I received the following letter, which needs no comment : —

" *I have been obliged, for reasons of health, to come back to France. I had*

(*To be continued ~~from~~ on p.* 50.)

MASDEVALLIA HARRYANA RCHB. f. en variétés.

1. M. HARRYANA var. KEGELIANI. 2. M. HARRYANA var. LILACINA. 3. M. HARRYANA var. CARNEA.
4. M. HARRYANA var. REGINAE. 5. M. HARRYANA var. ILLUSTRIS.

Chromolith. J.L. Goffart

PL. CCCLXXXII.

MASDEVALLIA HARRYANA RCHB. F. VARIETATES ALIQUOT.

Mr. HARRY VEITCH'S MASDEVALLIA, VARIETIES.

MASDEVALLIA. Vide *Lindenia,* Engl. ed., II, p. 17.

Masdevallia Harryana. Folio elongato spatulato obtuso, basin versus late ac sensim attenuato; sepalis lateralibus late semiovatis apiculatis, sepalo dorsali lineari porrecto.

Masdevallia Harryana RCHB. F. in *Gard. Chron.,* 1871, p. 1421.

Var. Kegeljani. Flore maximo, splendidissime carmineo-rubro, sepalorum parte media pallidiore.

Var. lilacina. Flore bene lato, lilacino-roseo, rubro venato et marginato.

Var. carnea. Sepalis pallide roseis, rubro venatis, apice aurantiaco-rubro, tubuli ore luteo.

Var. Reginae. Sepalis sanguineo-rubris.

Var. illustris. Sepalorum basi violaceo-roseis, venis et apice carmineis.

Masdevallia Harryana flowered for the first time in Europe in the month of September, 1871, among the importations of Messrs VEITCH. It was discovered, we are told in their *Manual of Orchidaceous plants*, by Chesterton, in 1871, near Sogamosa. Its principal habitat is on the eastern Cordillera, between Sogamosa and Concepcion, where it occurs between 7,000 and 10,000 feet above the level of the sea. It is particularly abundant in that part of the eastern Cordillera called the Sierra Nevada de Chita, where it spreads in uninterrupted masses for miles, growing in the partial shade afforded by the low shrubs that abound in the place.

In describing this species, REICHENBACH spoke of it in the following terms :

" .....The flower is a very dangerous, if not a victorious, rival of the Masdevallia that has been called *M. Lindeni* by Monsieur ANDRÉ. The large broad shining leaves may form a great attraction to Masdevalliophilists, but the blossom itself must move the admiration of every one who appreciates a wonderful flower. "

Masdevallia Harryana is as beautiful as *M. Lindeni,* though not more so. The two are of remarkable and ample form, rich and varied in colour, and of magnificent brilliancy. They are also very closely allied, for which reason many authors have reduced REICHENBACH'S species to the rank of a variety of *M. Lindeni,* not as we may suppose that *M. Lindeni* was well and known to the German professor in 1871 (for it was described a year earlier), we may also adopt this opinion.

The two Masdevallias of which we have just spoken are remarkably floriferous, and when they are cultivated in specimens, as we have seen them in many large collections — notably those of HOLBROOK GASKELL, Esq., of Liver-

pool, and of Sir TREVOR LAWRENCE — the aspect of these tufted masses covered with flowers, whose brilliant colours contrast strongly with the foliage, the effect is truly charming. Many amateurs, however, rather neglect the genus, but when the Masdevallias are cultivated intermixed with Odontoglossums, whose clear tints and slender undulate forms they set off so well, their presence unquestionably gives to the houses a powerful attraction.

The flowers of *M. Harryana* present an extremely extended range of variation as regards colour. We have thought it advisable, in order to demonstrate these variations, to figure on the same plate a few of the most remarkable and most distinct varieties which have flowered during the present year in the houses of the HORTICULTURE INTERNATIONALE, at Brussels. The following is a summarised description.

M. Harryana var. Kegeljani. This magnificent variety has flowers of extraordinary size. The sepals have the outer margins distinctly rounded, and the colour is a superb carmine-red, with the margins and tips a little darker, and a paler more lilac-coloured band down the centre. This variety is dedicated to M. F. KEGELJAN, of Namur, a distinguished Belgian amateur. When exhibited at a meeting of the ORCHIDÉENNE on April 16th., 1892, it was awarded a First-class Diploma of Honour, with acclamation.

M. Harryana var. lilacina is of a light rose shade veined with red, and tinted with brighter red at the apex and margins.

M. Harryana var. carnea has the sepals of a very pale rose, with the nerves and apex bright red bordering on vermilion. The whole tube is of a beautiful golden yellow.

M. Harryana var. Reginae is entirely of a warm shade bordering on vermillion, inclining to blood red.

M. Harryana var. illustris is smaller, but very distinct. The sepals are violet-rose at the base and on the lower half, the remainder being of a brilliant carmine red, and the nerves, which are of the same tint, extend right to the entrance of the tube. The form of the flower is also peculiar, the tips of the lateral sepals, instead of curving inwards and crossing each other, are straight or slightly inclined away from one another.

These five beautiful varieties demonstrate well the richness of colour which is found in the genus, and particularly in the species now under consideration. There are many others almost as remarkable; for example, the visitors at the meeting of the ORCHIDÉENNE held at Brussels on May 14th last admired a group of twenty distinct varieties exhibited by the HORTICULTURE INTERNATIONALE, to which a First-class Certificate was unanimously awarded.

L. LINDEN.

CHYSIS BRACTESCENS LINDL.

PL. CCCLXXXIII.

CHYSIS BRACTESCENS LINDL.

THE BRACTEATE CHYSIS.

CHYSIS. Sepala aequilonga, inter se libera, patentia, lateralia postico latiora, basi obliqua columnae pedi affixa. Petala sepalo postico similia. Labellum pedi columnae affixum eique breviter incumbens, dein erectum; lobi laterales ampli, erecti, medius patens v. reflexus, integer v. bilobus; laminae v. venae disci basi saepius callosae. Columna erecta, incurva, crassa, latiuscule bialata, basi in pedem producta; clinandrii dentes laterales breves, obtusi, posticus longior. Anthera denti postico affixa, opercularis, incumbens, loculis 2 distinctis imperfecte bi-quadrilocellatis; pollinia 8, in quoque loculo 4, obovoidea v. oblonga, cerea, appendicula granulosa ampla interdum fere in laminam extensa connexa, paris inferioris cujusve loculi saepius majora v. inter se valde inaequalia, paris superioris interdum appendicula adnata (v. vix ab ea distincta?).

Herbae epiphyticae; caules carnosuli, basi vaginati, superne confertim foliosi, demum incrassate fusiformes v. longe pseudobulbosi. Folia longiuscula, venis prominulis. Racemus lateralis, saepius ad axillam folii inferioris; flores plures, speciosi, albi v. plus minus flavi. Bracteae nunc parvae nunc foliaceae, flore paullo breviores.

Species circa 6, Mexici et Colombiae incolae.

Chysis LINDL. *Bot. Reg.*, XXIII (1837), t. 1937. — BENTH. et HOOK. F. *Gen. Plant.*, III, p. 514.

Chysis bractescens. Pseudobulbi fusiformes, carnosi. Folia ovato-lanceolata, acuta, undulata, subplicata, basi cucullata. Racemi breves, 4-5-flori. Bracteae magnae, ovatae, subacutae, concavae. Flores magni, cerei, candidi, coriacei. Sepala ovato-oblonga, subobtusa, lateralia postico latiora, margine incurva. Petala oblonga, erecta, obtusa, basi angustata. Labellum intus luteum, extus candidum, hypochilii lobis lateralibus erectis rotundatis, cristis 5 laevibus parallelis basi pubescentibus, epichilio bilobo nudo complicato. Columna latissima, cymbiformis, carnosa, antice pubescens, in pedem producta.

Chysis bractescens LINDL. *Bot. Reg.*, XXVI, *Misc.*, p. 61. — *Id.*, XXVII, t. 23. — *Bot. Mag.*, t. 5186. — BATEM. *Sec. Cent. Orch.*, t. 138. — *Fl. des Serres*, t. 675. — *Ill. Hort.*, XXVII, p. 148, t. 398. — *Rev. Hort.*, 1859, pp. 293-5, fig. 71, 72. — *Deutsche Gärt. Zeit.*, 1886, p. 82, fig. 17. — *Reichenbachia*, ser. 1, I, p. 41, t. 18. — WARN. & WILL. *Orchid Album*, X, t. 446. — VEITCH *Man. Orch.*, VI, p. 25.

Chysis bractescens has been an inhabitant of our gardens for upwards of half a century, as it flowered for the first time in Europe in 1840, in the collection of Mr JOHN BARKER, of Birmingham, who introduced it. Mexico is its native country, and it is said to have been frequently received from Cordova, in the province of Vera Cruz, and from Tobasco, where it grows hanging from the branches of the trees by means of its long fibrous roots. It is sometimes received with *C. aurea*, with which it probably grows, at least occasionally.

It flowers in the early spring months, and may be distinguished from every other species by its large bracts and cream-white flowers.

It should be cultivated in well-drained pots, in a compost of peat and moss, and should be grown at the coolest end of the East Indian house, and liberally watered during the growing season. When the growths are matured, they should

be removed to a cooler house, to receive a rest, and during this period very little water should be given.

Chysis bractescens has been utilised by the hybridist, as *C.* × *Chelsoni* and *C.* × *Sedeni* are both partly derived from it.

R. A. ROLFE.

(*Continued from page* 46.)

brought some cases of Orchids, as you requested me, but by an unforeseen accident a dozen packages have been carried off by the sea, and on a first glance round I perceive that yours are missing. I have managed, I think, to save the Eulophiellas which you requested. AS THIS SPECIES WAS ONE OF MY DISCOVERIES, *will you state what you will offer for the entire stock, for I have completely destroyed the plant in its native habitat.* "

On receipt of the telegram announcing the arrival of M. HAMELIN, I had sent to Marseilles our representative, M. VAN MOL, to inspect the plants which according to agreement had been collected for us. He telegraphed to me immediately on his arrival that M. HAMELIN had been in France since the 20th. of the month, and had brought 1000 plants of Eulophiella, of which he had already sold 500, which were gone to England. Thus we see how these plants had been carried off by the sea. He also said that there were still 500 plants which were offered to us, but among these there were many that were doubtful. I easily guessed the sequal of the whole affair. M. HAMELIN (who was able, no doubt, after this sale to verify the fact that the Eulophiella was indeed saved, Good Heavens !) thought that the placing of the remaining plants to our account was certain, and intended to make a double profit very easily.

Since the plants were already in other hands in large quantities, I did not care to recommence the struggle of depreciation which at other times and for other species had taken place and which I have always deplored. I therefore gave orders by telegram to M. VAN MOL not to buy the Eulophiella, and, as will be imagined, I did not reply to a new telegram addressed to me by M. HAMELIN on May 31st., again offering the plants which remained.

This is the documentary history of *Eulophiella Elisabethae*.

The *Gardening World* has published a veritable romance, of artless conception, respecting the introduction of this plant, insinuating that it was M. HAMELIN who gave to M. SALLERIN the plant which the latter sent to us. How did this english journal know that? Is it through M. HAMELIN? I have published the above extracts of letters to show what confidance may be placed in him, and to render to Cœsar, or rather to our unfortunate collector SALLERIN, who is no longer able to defend himself, that which belongs to him. *It will be admitted as right and proper that the false and erroneous statements which have been made should be corrected.*

L. L.

MILTONIA WARSCEWICZII RCHB. F.

PL. CCCLXXXIV.

MILTONIA WARSCEWICZII RCHB. F.

M. WARSCEWICZ'S MILTONIA.

MILTONIA. Vide *Lindenia,* Engl. ed., vol. III, p. 47.

Miltonia Warscewiczii. Pseudobulbi oblongi, subcompressi, nitidi. Folia lineari-oblonga, acuta. Panicula pedunculata, multiflora. Braeteae ovato-oblongae, acuminatae, breves. Sepala brevissime unguiculata, obovato-oblonga, obtusa, crispo-undulata. Petala sepalis similia. Labellum late subcuneato-oblongum v. quadratum, convexum, apice brevissime bilobum, basi velutinum, obscure cristatum. Columna brevissima.

Miltonia Warscewiczii RCHB. F. *Xen. Orch.*, I, p. 132. — ID. in *Gard. Chron.*, 1869, p. 277 et 1067. — ID. 1871, p. 1258, fig. 281. — ID., 1876, i, p. 394. — ID., 1877, i, p. 202. — *Bot. Mag.*, t. 5843. — *Gartenflora,* XXI, p. 340, cum xyl. — WARN. & WILL. *Orchid Album,* V, t. 216. — VEITCH *Man. Orch.*, VIII, p. 115, cum xyl.

Oncidium fuscatum RCHB. F. in *Walp. Ann.*, VI, p. 763. — *Fl. des Serres,* t. 1831. — *Ill. Hort.*, XXI, p. 11, t. 158.

Oncidium Weltoni superbum CARR. in *Rev. Hort.*, 1881, pp. 450, 451, fig. 105, cum ic.

Var. aetherea RCHB. F. in *Gard. Chron.*, 1881, i, p. 428. — ID., 1882, i, p. 732.

Var. xanthina RCHB. F. in *Gard. Chron.*, 1883, ii, p. 812.

This beautiful species is said to have been originally discovered by the German traveller, PÖPPIG, in February 1830, near Cuchero, in Peru; in which country it was also met with by WARSCEWICZ, many years later, near Quindiu. REICHENBACH also speaks of a very damaged specimen in the Hookerian Herbarium, gathered by PURDIE, but this I am convinced is something different, for I find no other evidence that this collector ever obtained it. ROEZL and WALLIS also met with it. It was introduced to cultivation by M. LINDEN, through his collector WALLIS, and flowered for the first time in Europe in 1869.

It soon proved to be very variable in colour, for in 1876 REICHENBACH wrote that he had never twice seen the same variety, so variable was it, and he had also observed a similar propensity to vary in size. This may partly be due to a somewhat wide diffusion, for BURKE, one of Messrs VEITCH's collectors, found it near the Rio Verde, in the province of Antioquia, in New Granada, growing on small trees and shrubs close to the ground, and on moss-covered stones, at 2,000 to 3,000 feet elevation.

It is a most distinct species, readily separated from every other by its paniculate inflorescence, as well as by the shape of the flower. The sepals and petals vary from brown to yellow, the apical portion usually being white or very light yellow. The lip is rose-purple with a red-brown disc and a white margin, and also white at the extreme base, where are situated two small yellow teeth.

Miltonia Warscewiczii is said to require a little more heat and shade than most other species of the genus, and will succeed either in the Cattleya house

or at the cool end of the East-Indian house. It should be cultivated in a compost of peat and moss, in well-drained pots, and should be liberally watered during the growing season, and must not be allowed to become dry at any time. This beautiful species is worthy of special attention, on account of the beauty of its flowers and their variability in different individuals.

R. A. Rolfe.

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